TECHNONICOL

GENERAL CATALOGUE

ROOFING, WATERPROOFING AND THERMAL INSULATION MATERIALS

KNOWLEDGE. EXPERIENCE. CRAFTSMANSHIP.

WWW.TECHNONICOL.IN

CONTENTS

ABOUT TECHNONICOL

8000
QUALIFIED EMPLOYEES

69
PRODUCTION SITES

10
R&D CENTERS

more than 30
YEARS ON THE MARKET

TECHNONICOL Corporation is the largest Russian and European manufacturer and supplier of roofing, waterproofing, sound and thermal insulation materials.

The company was founded in 1992 and since then has accumulated considerable experience on the building materials market. We are proud to offer up-to-date materials and technologies that combine global expertise and elaboration of our own R&D centers. Wide range of high-quality materials and reliable solutions allows making a choice that is best suited to the customer both in price and in quality.

At present, TECHNONICOL Corporation owns 69 production sites in Russia, CIS and Asia, retail network of 140 branches and representative offices in 37 countries. Company materials were already used in more than 200.000 sites in 118 countries around the world. It is an honor for us to be a partner for more than 500 independent distributors presenting 32 of our own brands.

PRODUCTION IMPROVEMENT

The key of the successful activity of TECHNONICOL resides in the high quality of research and control before, during and after production processes. All export plants of TECHNONICOL have passed UNI EN ISO 9001 and UNI EN ISO 14001 certification and strictly comply with the quality standards determined by these international requirements.

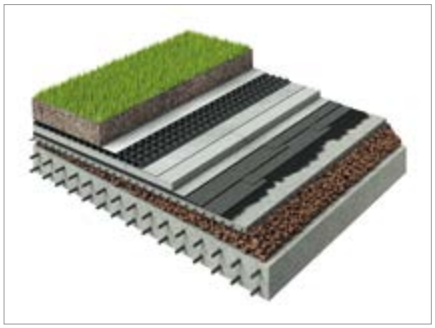
All plants of TECHNONICOL are committed to continuous improvement of pollution prevention and compliance with relevant environmental legislation:

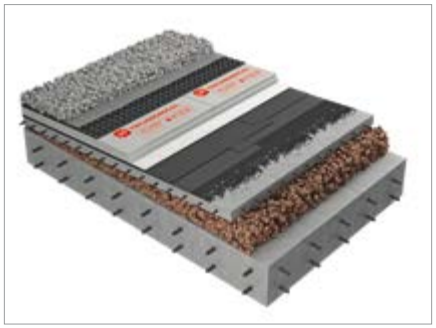
- All plants of the Corporation are subjected to state environmental appraisal at their design stage. The environment at our industrial sites is monitored daily. TECHNONICOL invests in waste free production, advanced equipment and environmental protection technologies.
- All products developed and supplied by TECHNONICOL meet environmental standards and are safe for humans and the environment.

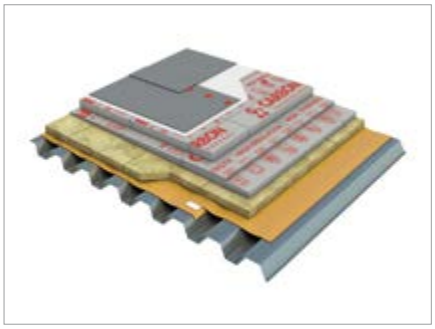
Our production capacities and equipment give us an ability to supply materials for large construction projects and to develop unique products based on individual requirements. Competence of employees, professional technical consultations, development of new materials in our own R&D centers, quality of products and solutions – all of these allow TECHNONICOL to approach each client individually and help us to meet every customer's expectations and needs.

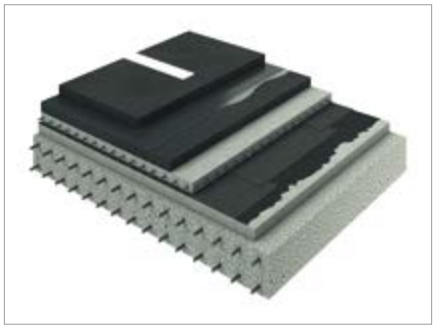
Improved customer service is also one of our priority principles. Leadership of TECHNONICOL products on the waterproofing market is achieved not only due to the quality of products we produce, but also due to a high level of technical support.

RELIABLE SOLUTIONS









TECHNONICOL Corporation develops and promotes materials and systems that minimize energy loss in the industrial and public utilities sectors. We introduce construction systems, aimed at the creation of comprehensive protection of the structure from the foundation to the roof.

The products, offered by TECHNONICOL Corporation — high-quality waterproofing and thermal insulation materials — are fully compatible and can be used in the offered systems. Material compatibility with each other is one of the basic conditions to obtain a reliable complete insulation system. That is why our experts have developed a number of professional technical solutions for different types of projects. Here we follow three main principles: the compatibility of components, durability and reasonable price.

RESEARCH AND DEVELOPMENT

TECHNONICOL has ten scientific research and development centers located close to the production sites and a number of laboratories to test new materials. Our scientists are focused on the study of performance of building materials, prevention of their aging, increasing the possibilities of application by expanding the operating temperature range, developing additional functions, such as air purification, resistance to moss growth or increasing energy efficiency.

The main activities of the R&D centers are:

- creation of new roofing, waterproofing and thermal insulation materials;
- investigation: chemical, physical and other analysis, assistance in solving technological problems;
- modernization of production technology;
- improvement of methods for the analysis of raw materials and finished products, introduction of rapid methods;
- collaborative support provided to factories' laboratories.

Laboratories on the factories operate on the basis of modern equipment, which is used to study the physical and mechanical characteristics of materials in a wide temperature range, determine the structure and composition of raw materials, test the durability of materials. A unique chromatograph equipment is used to determine the composition of bitumen for the production of roofing materials, and to ensure optimal selection of the type and amount of modifying additives.

An artificial climate chamber is used to study the aging process of materials. The method gives the possibility to predict waterproofing materials performance after many years of exploitation on the roof in just 2 or 3 months of testing.

Fire-safe materials and construction systems are one of the major priorities of TECHNONICOL Corporation. Our roofing and waterproofing membranes fully comply with strict European fire safety regulations. Bitumen and synthetic membranes are capable to resist flames and correspond to E class. Roofing systems are tested to evaluate the fire performance and meet the criteria for the Broof classification. TECHNONICOL stone wool matches the requirements of A1 Euroclass.

Research and implementation of advanced technologies allow TECHNONICOL to bring new products and many product variations depending on customer needs each year.

In cooperation with the research and development centers, our factories have obtained a number of product certificates issued by many prestigious institutes around the world.

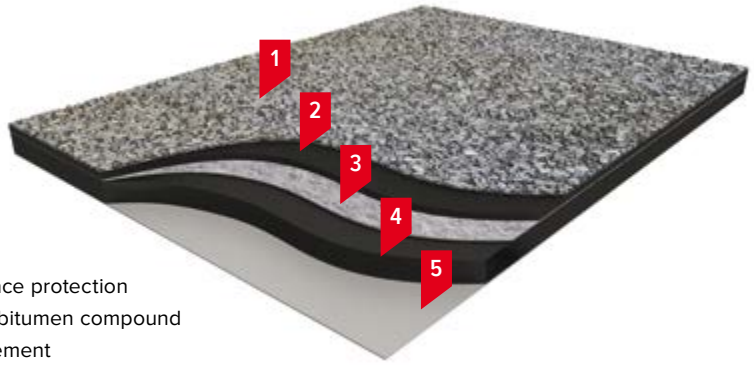
REFERENCES

Gurugram, India
AIR HOTEL BY AHUJA RESIDENCY

Bengaluru, India
BANGALORE INTERNATIONAL AIRPORT - TERMINAL 2

Goa, India
RIVA RESORT

POLYMER-BITUMEN MEMBRANES



1. Top surface protection
2. Polymer-bitumen compound
3. Reinforcement
4. Polymer-bitumen compound
5. Underside protection

The most widespread materials for creation of the waterproofing layer are the polymer-bitumen roll-fed membranes. This is due to a relative simplicity of installation, popularity of the technology, durability of the material and stability of the factory-set technical parameters. Polymer-bitumen membranes are commonly used for waterproofing of foundations, engineering structures, roads, bridge decks and flat roofs. These materials could also be used as an underlay for pitched roofs and as a vapor barrier.

Polymer-bitumen membranes are affected by many unfavourable factors from the external environment. Changes in the surrounding temperature can cause deformations of the material and the substrate on which it is installed. The ability to withstand such deformations is the most important characteristic of roofing and waterproofing materials and it depends on many components used at the production stage.

POLYMER-BITUMEN COMPOUND

The compound is a specially formulated mixture of bitumen and polymers. The main difference between the compound types is the type of polymer used:

- **APP** polymer provides additional flow resistance that makes it possible to use the material in a very hot climate.
- **SBS** polymer provides additional flexibility and dynamic resistance to the material.
- Special anti-root additives can be added to the polymer-bitumen compound to make it resistant to root penetration and ensure a reliable waterproofing of green roofs and foundations.

REINFORCEMENT


- **Polyester** provides excellent elongation properties and gives optimal strength to the material.
- **Glass fiber** provides additional dimensional stability but does not impart elongation properties.

POLYMER FILM


- Thin polymer film is used to protect the underside surface from sticking in the roll. The film is covered with special graphic indicators for easier and more reliable torch-on installation. The film melts when heated. If the graphic indicators become completely fused (the surface is all black), it means that the material is overheated. The material is heated properly when the graphic indicators are deformed but visible.
- Polymer film without graphic elements is used as top surface protection of underlay membranes and materials designed for waterproofing of foundations and engineering structures.
- Perforated polymer film can be used as underside protection to ensure even points of adhesion distribution and increase the speed of installation of the material.

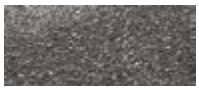
SELF-ADHESIVE SURFACE

The special adhesive polymer-bitumen compound is used for the production of self-adhesive membranes. The compound is covered with easily removable protective film. Self-adhesive materials ensure high speed of safe and cheap application and do not require any additional equipment and skills. Such materials can also be used in conditions, when the standard torch-on application is forbidden (expanded / extruded polystyrene or wooden base, indoor waterproofing).

FINE-GRAINED SAND OR TALCUM


Fine-grained sand or talcum can be used to cover the top or underside surface of the membrane. Such type of covering allows installation by means of hot or cold applied mastics or by torching.

SLATE



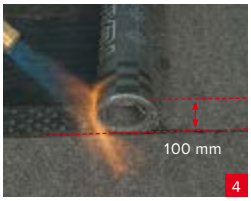

The coarse-grained mineral slate with special hydrophobic treatments protects the material from damage by ultraviolet radiation during the whole service life of the membrane. It is used for cap sheet membranes in double-layer waterproofing systems.

The slate can be supplied in various colors that will provide nice aesthetic appearance. The standard colors include natural grey, red, green and white, while other colors are available on request.

SPECIAL COVERING


ENVIRO eco-friendly product line makes a positive impact on the environment – thanks to the surface with special additives it helps to purify city air, increase energy efficiency of buildings and protect the roof from moss overgrowing. These materials successfully and effectively combine environmental friendliness and technologies aimed at improving living standards and reducing the operation cost of the facility. ENVIRO product line was created with a real care about the future of our planet.

TORCH-ON APPLICATION

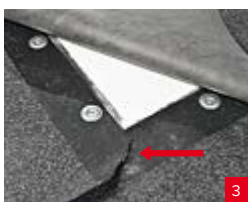


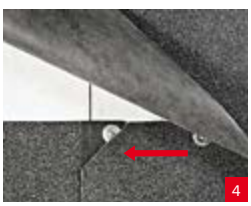
1. The surface must be cleaned of dust, debris, grease, leaves and should not have gaps and cracks or other irregularities. The surface must be treated with primer before the installation of a waterproofing material.
2. During the installation, the material and the substrate must be heated by torch across the full width of the roll; the place of overlapping must be heated additionally. When properly installed, the whole surface of the material gets stuck to the substrate and bitumen leaks from under the edges for about 5–10 mm.
3. A cap sheet membrane should be positioned at a distance of min. 300 mm from the overlaps of an underlay membrane. Usually it is moved at a distance of 500 mm (50% of the roll width). The distance between different end laps of rolls should be at least 500 mm.
4. The overlap along the edge joint should be 100 mm. The recommended overlap for single-layer application of bitumen membrane is 120 mm. The overlap at sheet ends should not be less than 150 mm. The minimum length of a roll material that can be installed is 1 m.
5. The roofer should remove coarse-grained slate in places of end overlaps of the cap sheet membrane, because it significantly reduces the adhesion of the material. The top side of the material (with slate) must be additionally heated by torch in places of such overlaps. Then the slate is pressed into bitumen by spatula.

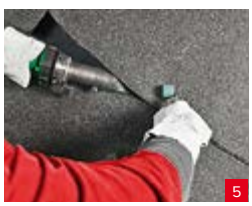
APPLICATION WITH MASTIC

1. The surface must be cleaned of dust, debris, grease, leaves and should not have gaps and cracks or other irregularities. The surface must be treated with primer before applying the mastic.
2. Spread the attaching mastic across the substrate with a special spatula following the recommendations on layer thickness. It is recommended to use a special cold-applied roofing mastic, but hot-applied mastic can also be used. Hot-applied mastic should be pre-melted at a temperature of 180°C before being applied to the substrate.
   IMPORTANT! Mastic is always applied to the surface, not to the material.
3. Roll-fed materials should be installed on the spread mastic layer avoiding creases and bubbles.
   IMPORTANT! Only materials with a coating of fine-grained sand are suitable for mastic-application.
4. Straighten the roll-fed material by smoothing it with a brush to avoid creases or bubbles of air on the material. Then fix the completely glued roll with a heavy roller.
5. Press down the material at the overlaps with a heavy roller until mastic flows out of the joint. Mastic should be flowing out from under the overlap for 7–10 mm for the best joint quality.

INSTALLATION OF A SINGLE-PLY BITUMEN MEMBRANE

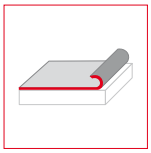






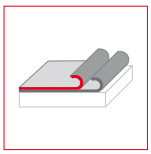
1. Automatic equipment such as Leister Varimat may be used for welding the overlaps in the process of installation. In this case it is recommended to prepare an additional assembly strip. It will make the installation more convenient and faster. At the end next to the assembly strip the end joints do not need to be staggered. This technological method can be also used in the process of torch-on application.
2. Side overlaps should be not less than 120 mm, end overlaps should be 150 mm. The distance between the staggered overlaps (if needed) must be at least 500 mm. On a shaped decking roof, a single-ply membrane should be installed across the flooring waves.
3. The corners of rolls should be cut in places of T-shaped joints.
4. Cutting the corners allows to increase the quality of welded joints and avoid lack of material welding in such places.
5. The places that cannot be welded with an automatic equipment are welded with a heat gun.

AREAS OF APPLICATION



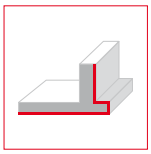
SINGLE-LAYER ROOFING

Waterproofing of shopping centers, industrial or any other buildings with a large roof area, where it is important to get a quick result (the installation of a single-layer system takes less time than the installation of a double-layer system). For single-ply roofing, a thicker membrane is required.



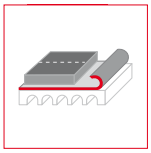
DOUBLE-LAYER ROOFING

A very reliable solution for flat roof waterproofing is a double layer system, characterized by a reduced risk of leaks. Two types of polymer-bitumen membranes are used for such systems. A cap sheet membrane is used as a top layer. The top side of the membrane is usually protected from UV with coarse-grained slate or basalt granules. The membrane for the bottom layer is protected with polymeric film or fine-grained sand depending on the type of fastening of the system layers.



FOUNDATIONS AND BLIND SIDES OF BELOW-GRADE WALLS

Waterproofing of foundations, blind sides of below-grade walls and underground structures of all types. It protects the structure from groundwater, stormwater runoff, floods, etc. and increases the service life of the whole structure in general.

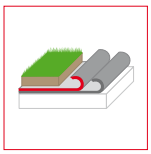


BRIDGES AND ROADS WATERPROOFING

Waterproofing of concrete and steel bridge decks, flyovers, car parkings and other traffic areas. The membrane should have an enhanced physical and mechanical properties to withstand the operational movements of the substrate.

INDOOR WATERPROOFING

This group includes self-adhesive membranes and materials with fine-grained sand on the bottom side that can be fixed to the surface by means of mastics in order to avoid using an open flame. It is used for waterproofing of bathrooms, kitchens and other internal premises with high air humidity.

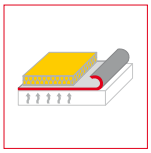


CAP SHEET MEMBRANE FOR GREEN ROOFS

The top layer of roof cladding with special anti-root additives in the polymer-bitumen compound designed for the construction of “green roof” – a type of ballast roof with greenery on top. It is also used for foundation waterproofing with additional protection from roots of plants located nearby.

ROOFING UNDERLAY FOR PITCHED ROOFS

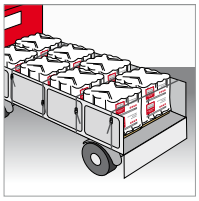
Underlay material for all kinds of pitched roofs with the protective covering on top (bitumen shingles, ceramic tiles, metal tiles, etc.). The application of an underlay membrane is required to ensure additional protection from any possible leakages.

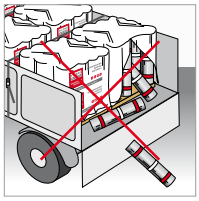


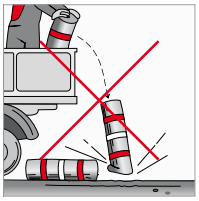
VAPOR BARRIER

A vapor barrier for flat roofs of residential, public or industrial buildings suitable for all types of substrate – concrete, metal, wood, etc. It is necessary for protection of thermal insulation and roof cladding from moisture, which is formed due to a difference between indoor and outdoor temperature and air humidity.

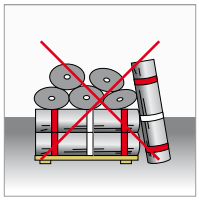
TRANSPORTATION AND STORAGE

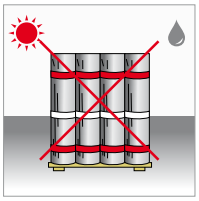






- The rolls must be transported in closed vehicles in an upright position on a pallet in a 1-row height.
- Ropes should be used to fasten the pallet in order to avoid film damage.
- Avoid falls or other mechanical impacts during loading and unloading of rolls.





- The protective film of the rolls should not be damaged after unloading.
- The rolls should be stored upright on pallets in a 1-row height.
- Storage of the rolls in a horizontal position is prohibited.
- Protect the rolls from direct UV-rays and moisture.
- Keep the minimum distance of 1 m from any source of heat.

Sochi, Russia
FISHT CENTRAL OLYMPIC STADIUM

Jakarta, Indonesia
CIBIS TOWER

Klaipeda, Lithuania
VLANTANA, LOGISTICS CENTER

TORCH APPLIED MEMBRANES

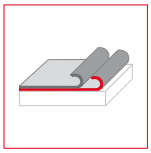
ULTRAPLAST

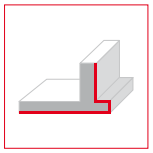
APP MODIFIED BITUMEN ROOFING AND WATERPROOFING MEMBRANE

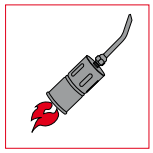
ULTRAPLAST APP-modified bitumen membrane is designed for installation as a single layer in non-exposed one-layer and as a bottom layer in double-layer roofing system of buildings and structures and for the waterproofing of foundations and engineering structures. It can also be used as an underlay for bitumen shingles on pitched roofs. The membrane is used for new construction or repair.

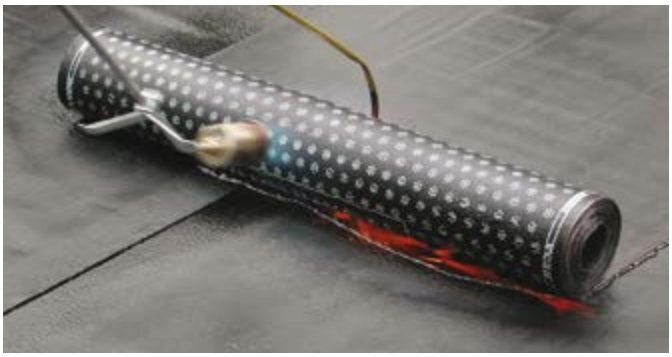
The material withstands temperature fluctuations and high mechanical loads providing a long-term, reliable and effective waterproofing. APP polymer provides additional flow resistance that makes it possible to use the material in a very hot climate.

On the bottom side, the material is coated with a polymer film with special graphic elements, melting of which indicates proper material heating. On the top side, the material is coated with a polymer film.









PROPERTIES	TEST METHOD	ULTRAPLAST A 2 I 3 I 4 mm	ULTRAPLAST B 2 I 3 I 4 mm	ULTRAPLAST C 2 I 3 I 4 mm
Thickness, mm	EN 1849-1	2.0±0.20 I 3.0±0.20 I 4.0±0.20		
Mass per unit area, kg/m²	EN 1849-1	2.8±0.28 I 3.8±0.38 I 5.1±0.48		
Length x width, m	EN 1848-1	15 x 1 I 10 x 1 I 10 x 1		
Softening point, °C	ASTM D36	≥145	≥145	≥145
Flexibility at low temperature, °C	EN 1109-1	≤-6	≤-2	≤0
Flow resistance at elevated temperature, °C	EN 1110	≥120	≥120	≥120
Elongation at break L / T, %	ASTM D5147	45±9 / 50±10	40±8 / 45±9	40±8 / 45±9
Tensile strength L / T, N/50 mm	ASTM D5147	850±170 / 650±130	750±150 / 600±120	650±130 / 400±80
Tear resistance L / T, N	ASTM D4073	350±100 / 350±100	300±100 / 300±100	300±100 / 300±100
Reinforcement type	-	polyester	polyester	polyester
Protective coating type on the top	-	polymer film	polymer film	polymer film
Protective coating type at the bottom	-	polymer film	polymer film	polymer film

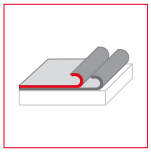
ULTRAPLAST grey mineral

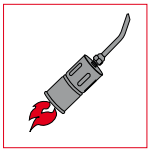
APP MODIFIED BITUMEN ROOFING AND WATERPROOFING CAP SHEET MEMBRANE

ULTRAPLAST grey mineral APP-modified bitumen membrane is designed for installation as a single layer and the top layer in double-layer roofing system on buildings and structures. It can be used for new construction or repair.

The material withstands temperature fluctuations and high mechanical loads providing a long-term, reliable and effective waterproofing. APP polymer provides additional flow resistance that makes it possible to use the material in a very hot climate.

On the bottom side, the material is coated with a polymer film with special graphic elements, melting of which indicates proper material heating. On the top side, the material is coated with a coarse-grained slate with special hydrophobic treatment that protects the material from damage by ultraviolet radiation during the whole service life of the membrane.





PROPERTIES	TEST METHOD	ULTRAPLAST A 3 I 4 mm grey mineral	ULTRAPLAST B 3 I 4 mm grey mineral	ULTRAPLAST C 3 mm grey mineral
Thickness, mm	EN 1849-1	3.0±0.20 I 4.0±0.20	3.0±0.20 I 4.0±0.20	3.0±0.20
Mass per unit area, kg/m²	EN 1849-1	3.8±0.38 I 5.1±0.48	3.8±0.38 I 5.1±0.48	3.8±0.38
Length x width, m	EN 1848-1	10 x 1	10 x 1	10 x 1
Softening point, °C	ASTM D36	≥145	≥145	≥145
Flexibility at low temperature, °C	EN 1109-1	≤-6	≤-2	≤0
Flow resistance at elevated temperature, °C	EN 1110	≥120	≥120	≥120
Elongation at break L / T, %	ASTM D5147	45±9 / 50±10	40±8 / 45±9	40±8 / 45±9
Tensile strength L / T, N/50 mm	ASTM D5147	850±170 / 650±130	750±150 / 600±120	650±130 / 400±80
Tear resistance L / T, N	ASTM D4073	350±100 / 350±100	300±100 / 300±100	300±100 / 300±100
Reinforcement type	-	polyester	polyester	polyester
Protective coating type on the top	-	coarse-grained slate	coarse-grained slate	coarse-grained slate
Protective coating type at the bottom	-	polymer film	polymer film	polymer film

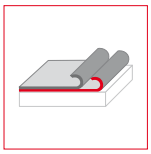
ULTRAFLEX

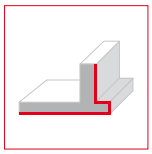
SBS MODIFIED BITUMEN ROOFING AND WATERPROOFING MEMBRANE

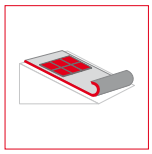
ULTRAFLEX SBS-modified bitumen membrane is designed for installation as a single layer in non-exposed one-layer and as a bottom layer in double-layer roofing systems of buildings and structures and for the waterproofing of foundations and engineering structures. It can also be used as an underlay for bitumen shingles on pitched roofs. The membrane is used for new construction or repair.

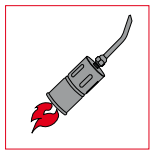
The material withstands temperature fluctuations and high mechanical loads providing a long-term, reliable and effective waterproofing. SBS polymer provides additional flexibility and dynamic resistance.

On the bottom side, the material is coated with a polymer film with special graphic elements, melting of which indicates proper material heating. On the top side, the material is coated with a polymer film.









PROPERTIES	TEST METHOD	ULTRAFLEX A 3 mm	ULTRAFLEX A 4 mm
Thickness, mm	EN 1849-1	3.0±0.20	4.0±0.20
Mass per unit area, kg/m^2	EN 1849-1	3.8±0.38	5.1±0.48
Length x width, m	EN 1848-1	10 x 1	10 x 1
Softening point, °C	ASTM D36	≥110	≥110
Flexibility at low temperature, °C	EN 1109-1	≤-10	≤-10
Flow resistance at elevated temperature, °C	EN 1110	≥100	≥100
Elongation at break L / T, %	ASTM D5147	45±9 / 50±10	45±9 / 50±10
Tensile strength L / T, N/50 mm	ASTM D5147	850±170 / 650±130	850±170 / 650±130
Tear resistance L / T, N	ASTM D4073	350±100 / 350±100	350±100 / 350±100
Reinforcement type	-	polyester	polyester
Protective coating type on the top	-	polymer film	polymer film
Protective coating type at the bottom	-	polymer film	polymer film

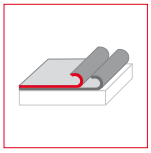
ULTRAFLEX grey mineral

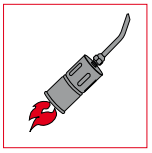
SBS MODIFIED BITUMEN ROOFING AND WATERPROOFING CAP SHEET MEMBRANE

ULTRAFLEX grey mineral SBS-modified bitumen membrane is designed for installation as a single layer and the top layer in double-layer roofing system on buildings and structures. It can be used for new construction or repair.

The material withstands temperature fluctuations and high mechanical loads providing a long-term, reliable and effective waterproofing. SBS polymer provides additional flexibility and dynamic resistance.

On the bottom side, the material is coated with a polymer film with special graphic elements, melting of which indicates proper material heating. On the top side, the material is coated with a coarse-grained slate with special hydrophobic treatment that protects the material from damage by ultraviolet radiation during the whole service life of the membrane.





PROPERTIES	TEST METHOD	ULTRAFLEX A 3 mm grey mineral	ULTRAFLEX A 4 mm grey mineral
Thickness, mm	EN 1849-1	3.0±0.20	4.0±0.20
Mass per unit area, kg/m²	EN 1849-1	3.8±0.38	5.1±0.48
Length x width, m	EN 1848-1	10 x 1	10 x 1
Softening point, °C	ASTM D36	≥110	≥110
Flexibility at low temperature, °C	EN 1109-1	≤-10	≤-10
Flow resistance at elevated temperature, °C	EN 1110	≥100	≥100
Elongation at break L / T, %	ASTM D5147	45±9 / 50±10	45±9 / 50±10
Tensile strength L / T, N/50 mm	ASTM D5147	850±170 / 650±130	850±170 / 650±130
Tear resistance L / T, N	ASTM D4073	350±100 / 350±100	350±100 / 350±100
Reinforcement type	-	polyester	polyester
Protective coating type on the top	-	coarse-grained slate	coarse-grained slate
Protective coating type at the bottom	-	polymer film	polymer film

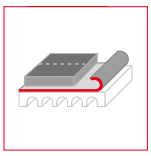
ULTRAPLAST BRIDGE

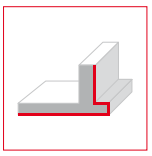
APP MODIFIED BITUMEN WATERPROOFING MEMBRANE FOR BRIDGES AND FLYOVERS

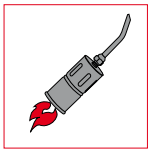
ULTRAPLAST BRIDGE APP-modified bitumen membrane is designed for the waterproofing of orthotropic steel plate and reinforced concrete slabs of carriageways when asphalt concrete (up to +220°C) is laid directly on the waterproofing layer. It can be also used as a single-layer waterproofing of the foundation.

ULTRAPLAST BRIDGE is a waterproofing material produced by the two-sided placing of a special high-quality polymer-bitumen binder on an extra strong polyester base. The material has the highest physical and mechanical properties and can withstand very high temperatures.

On the bottom side, the material is coated with a polymer film with special graphic elements, melting of which indicates proper material heating. On the top side, the material is coated with fine-grained sand.







PROPERTIES	TEST METHOD	ULTRAPLAST BRIDGE
Thickness, mm	EN 1849-1	5.2±0.10
Mass per unit area, kg/m^2	EN 1849-1	5.8±0.25
Length x width, m	EN 1848-1	8 x 1
Softening point, °C	ASTM D36	≥150
Flexibility at low temperature, °C	EN 1109-1	≤-25
Flow resistance at elevated temperature, °C	EN 1110	≥140
Elongation at break L / T, %	ASTM D5147	≥40 / ≥40
Tensile strength L / T, N/50 mm	ASTM D5147	≥1000 / ≥900
Tear resistance L / T, N	ASTM D4073	-
Reinforcement type	-	polyester
Protective coating type on the top	-	fine-grained sand
Protective coating type at the bottom	-	polymer film

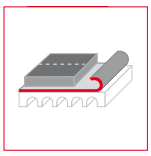
TECHNOELAST MOST B

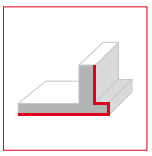
SBS-MODIFIED BITUMEN MEMBRANE FOR WATERPROOFING OF REINFORCED CONCRETE BRIDGE SLABS AND OTHER TRAFFIC AREAS

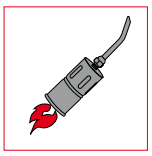
TECHNOELAST MOST B SBS-modified bitumen membrane is designed for the waterproofing of reinforced concrete slabs of the carriageways of bridge structures and other traffic areas. It can also be used as single-layer waterproofing of foundations.

TECHNOELAST MOST B is a waterproofing material produced by two-sided placing of a high-quality polymer-bitumen binder on a polyester base. The material has additional durability and resistibility features thanks to a special formula of polymer-bitumen binder and increased thickness.

On the bottom side the material is coated with a polymer film with special graphic elements, melting of which indicates proper material heating. On the top side the material is coated with coarse-grained slate, that protects the material from direct sunlight during installation, or polymer film.







PROPERTIES	TEST METHOD	TECHNOELAST MOST B 3.5 I 4.5 mm GREY SLATE	TECHNOELAST MOST B 3.5 I 4.5 mm
Thickness, mm	EN 1849-1	3.6±0.1 I 4.6±0.1	3.6±0.1 I 4.6±0.1
Mass per unit area, kg/m²	EN 1849-1	≥ 4.2 I ≥ 5.4	≥ 4.8 I ≥ 5.8
Length x width, m	EN 1848-1	10 x 1	10 x 1
Softening point, °C	ASTM D36	≥ +110	≥ +110
Flexibility at low temperature, °C	EN 1110	≤ -20	≤ -20
Flow resistance at elevated temperature, °C	EN 1110	≥ +100	≥ +100
Tensile properties: elongation at break L / T, %	ASTM D5147	40±20 / 40±20	40±20 / 40±20
Tear resistance L / T, N	ASTM D5147	500±150 / 500±150	500±150 / 500±150
Tensile properties: tensile strength L / T, N/50mm	ASTM D5147	≥ 600 / ≥ 600	800±200 / 800±200
Water resistance at a pressure of 0.2 MPa applied for 24 hours	EN 1928	Pass	Pass
Reinforcement type	-	polyester	polyester
Protective coating type on the top	-	coarse-grained slate /	polymer film
Protective coating type at the bottom	-	polymer film	polymer film

SELF-ADHESIVE MEMBRANES

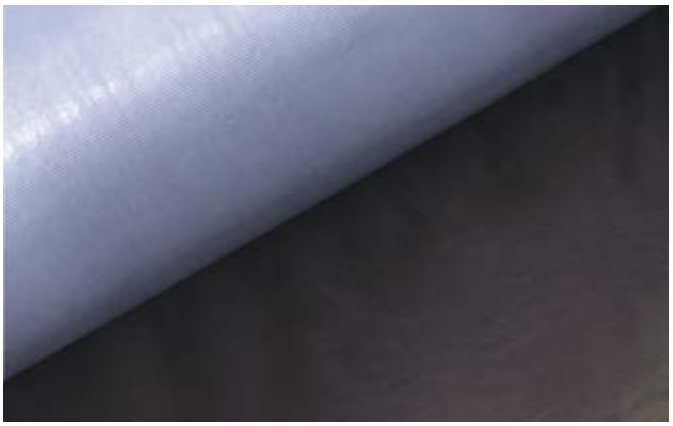
ULTRAFLEX SA

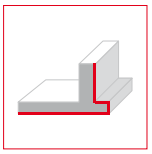
SBS MODIFIED BITUMEN SELF-ADHESIVE WATERPROOFING MEMBRANE

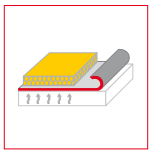
ULTRAFLEX SA self-adhesive polyester reinforced SBS-modified bitumen membrane is designed for completely safe application. It is used as an underlay on pitched roofs and as a vapor barrier. It can also be used for waterproofing of foundations and engineering structures. Thanks to a special adhesive bitumen compound, the material can be used on the surfaces where the standard torch-on application is forbidden (a flammable substrate).

ULTRAFLEX SA waterproofing material has the following advantages:

- additional strength due to polyester reinforcement;
- it can be used on the substrates where the standard torch-on application is forbidden (wood, XPS, etc.);
- high speed of application;
- safe and cheap application – the membrane is applied without the use of gas and flame;
- no need for any additional equipment and skills;
- cold application method prevents formation of smoke, odors and noise.







PROPERTIES	TEST METHOD	ULTRAFLEX SA 1.5 mm	ULTRAFLEX SA 2.0 mm
Thickness, mm	EN 1849-1	1.5±0.20	2.0±0.20
Mass per unit area, kg/m²	EN 1849-1	1.8±0.20	2.3±0.20
Length x width, m	EN 1848-1	20 x 1	20 x 1
Softening point, °C	ASTM D36	≥100	≥100
Flexibility at low temperature, °C	EN 1109-1	≤-20	≤-20
Flow resistance at elevated temperature, °C	EN 1110	≥90	≥90
Elongation at break L / T, %	ASTM D5147	35±20 / 35±20	35±20 / 35±20
Tensile strength L / T, N/50 mm	ASTM D5147	400±100 / 300±100	400±100 / 300±100
Peel resistance of joints: overlap to overlap / overlap to film, N/50 mm	EN 12316-1	≥40 / ≥20	≥60 / ≥30
Reinforcement type	-	polyester	polyester
Protective coating type on the top	-	polymer film or sand	polymer film or sand
Protective coating type at the bottom	-	anti-adhesion film	anti-adhesion film

ULTRAFLEX SA TOP

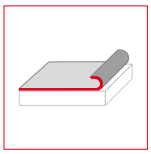
SBS-MODIFIED BITUMEN SELF-ADHESIVE ROOFING AND WATERPROOFING MEMBRANE

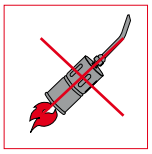
ULTRAFLEX SA TOP self-adhesive polyester reinforced SBS-modified bitumen membrane is a roofing and waterproofing material designed for single-layer installation on unexploited flat roofs with a slope of up to 5° (installation on roofs with a slope of up to 22° is possible with an additional mechanical fastening of the overlaps). It can be used for new construction or repair.

ULTRAFLEX SA TOP is used on low-shrink substrates, such as concrete, cement-sand screed, fiber-cement boards, cement-bonded particleboards and their analogs.

ULTRAFLEX SA TOP roofing material has the following advantages:

- Single-layer roofing;
- It can be installed on flammable decking (OSB-3, plywood, etc.);
- Longitudinal self-adhesive strips on the top side of the material provide reliably sealed overlapping;
- High speed of application;
- No need for any additional equipment and skills;
- Cold application method prevents smoke, odors and noise;
- High strength due to polyester reinforcement.





PROPERTIES	TEST METHOD	ULTRAFLEX SA TOP
Thickness, mm	EN 1849-1	4.2±0.42
Mass per unit area, kg/m²	EN 1849-1	5.0±0.25
Length x width, m	EN 1848-1	8 x 1
Softening point, °C	ASTM D36	≥110
Flexibility at low temperature, °C	EN 1109-1	≤-15
Flow resistance at elevated temperature, °C	EN 1110	≥100
Elongation at break L / T, %	ASTM D5147	30±15 / 30±15
Tensile strength L / T, N/50 mm	ASTM D5147	≥600 / ≥400
Peel resistance of joints: overlap to overlap, N/50 mm	EN 12316-1	≥25
Reinforcement type	-	polyester
Protective coating type on the top	-	coarse-grained slate
Protective coating type at the bottom	-	anti-adhesion film

ULTRAFLEX SA ALU

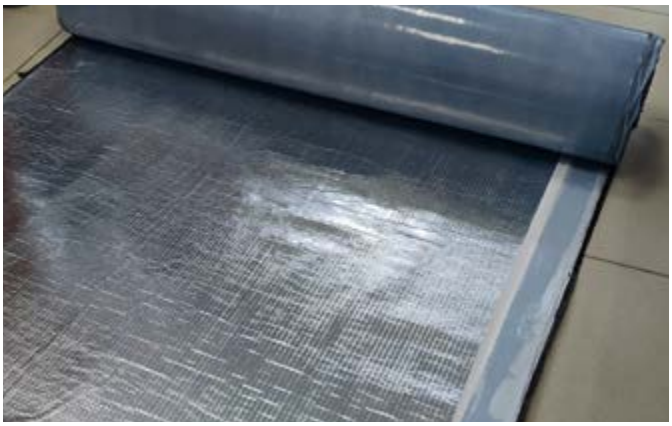
SELF-ADHESIVE FIBERGLASS-REINFORCED SBS-MODIFIED BITUMEN MEMBRANE WITH ALUMINIUM FOIL ON TOP

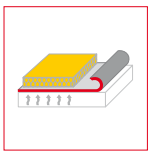
ULTRAFLEX SA ALU is used as an underlay on pitched roofs and as a vapor barrier. Could also be used on top of metal corrugated sheeting with adhering to the whole surface of corrugations (not only on the upper edge of the profiled sheet).

The membrane is produced on a base of a high-quality polymer-bitumen binder. On the top side, the membrane is covered with the combination of PET film and aluminium foil.

ULTRAFLEX SA ALU membrane has the following advantages:

- high speed of application;
- no need for any additional equipment and skills;
- reliable adhesive properties prevent the material from shifting and make it invulnerable to the wind load.





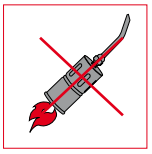
PROPERTIES	TEST METHOD	ULTRAFLEX SA ALU
Mass per unit area, kg/m²	EN 1849-1	1.8±0.2
Length x width, m	EN 1848-1	20 x 1.0
Softening point, °C	ASTM D36	≥ 100
Flexibility at low temperature, °C	EN 1109-1	≤-20
Flow resistance at elevated temperature, °C	EN 1110	≥ 90
Elongation at break L / T, %	ASTM D5147	4±2 / 4±2
Tensile strength L / T, N/50 mm	ASTM D5147	500±150 / 300±150
Tear resistance L / T, N	ASTM D4073	100±30 / 100±30
Peel resistance of joints, N/50 mm	EN 12316-1	≥ 30
Reinforcement type	-	fiberglass
Protective coating type on the top	-	PET film + aluminium foil
Protective coating type at the bottom	-	anti-adhesion film

ULTRAFLEX SA HDPE D

SBS-MODIFIED BITUMEN MEMBRANE FOR UNDERGROUND WATERPROOFING

ULTRAFLEX SA HDPE D self-adhesive carrierless SBS-modified bitumen membrane is designed for the waterproofing of foundations and engineering structures.
ULTRAFLEX SA HDPE D is produced by placing a special self-adhesive polymer-bitumen binder on across-laminated HDPE (high-density polyethylene) film that coats the material on top. Double self-adhesive lateral overlapping strips (one on each side of the top surface of the membrane) simplify the installation of the waterproofing system. The bottom surface of the material is coated with an easily removable protective film.

- Cross-laminated HDPE film gives additional dimensional stability to the material.
- Two self-adhesive lateral overlapping strips provide a maximum reliability to the joints sealing and allow temporary fastening of protection boards.
- High speed of application.
- No need for any additional equipment and skills.
- Cold application method prevents smoke, odors, and noise.



PROPERTIES	TEST METHOD	ULTRAFLEX SA HDPE
Thickness, mm	EN 1849-1	1.5±0.10
Mass per unit area, kg/m²	EN 1849-1	1.5±0.15
Length x width, m	EN 1848-1	20x1
Softening point, °C	ASTM D36	≥ +100
Flexibility at low temperature, °C	EN 1109-1	≤ -15
Flow resistance at elevated temperature, °C	EN 1110	≥ +85
Tensile properties: elongation at break L / T, %	ASTM D5147	≥ 300 / ≥ 250
Tensile strength L / T, N/50 mm	ASTM D5147	220±80 / 220±80
Determination of shear resistance of joints, kN/m	EN 12317-1	≥ 2.0
Reinforcement type	-	carrierless
Protective coating type on the top	-	cross-laminated HDPE film
Protective coating type at the bottom	-	self-adhesive binder / anti-adhesion film

ULTRAFLEX SA 7000-X

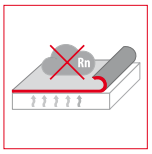
SBS-MODIFIED BITUMEN SELF-ADHESIVE NON-REINFORCED MEMBRANE WITH RECORD ELONGATION PROPERTIES

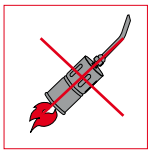
ULTRAFLEX SA 7000-X self-adhesive carrierless SBS-modified bitumen membrane is designed for the waterproofing of foundations and engineering structures with the additional feature of radon protection.

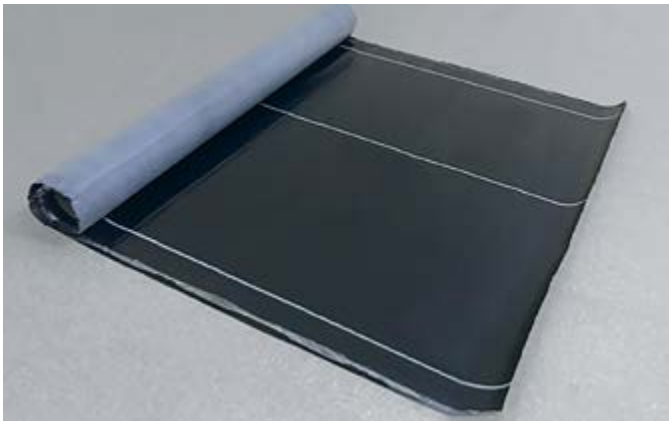
ULTRAFLEX SA 7000-X is produced by placing a special self-adhesive polymer-bitumen binder on a unique high-performance polymer film that coats the material on top. The bottom surface of the material is coated with an easily removable protective film.

ULTRAFLEX SA 7000-X waterproofing material has the following advantages:

- record high elongation properties prevent the material from damage caused by movements of the substrate;
- excellent physical and mechanical characteristics in all directions;
- prevents radon penetration into the structure;
- high speed of application;
- safe and cheap application – the membrane is applied without the use of gas and flame.







PROPERTIES	TEST METHOD	ULTRAFLEX SA 7000-X
Thickness, mm	EN 1849-1	1.5±0.10
Mass per unit area, kg/m²	EN 1849-1	1.5±0.15
Length x width, m	EN 1848-1	20 × 1
Softening point, °C	ASTM D36	≥100
Flexibility at low temperature, °C	EN 1109-1	≤-15
Flow resistance at elevated temperature, °C	EN 1110	≥85
Elongation at break L / T, %	ASTM D5147	≥800 / ≥800
Tensile strength L / T, N/50 mm	ASTM D5147	400±100 / 300±100
Peel resistance of joints: overlap to overlap / overlap to film, N/50 mm	EN 12316-1	≥25 / -
Reinforcement type	-	carrierless
Protective coating type on the top	-	high-performance polymer film
Protective coating type at the bottom	-	anti-adhesion film

ULTRAFLEX SA NB

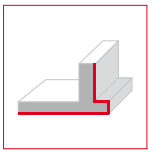
SBS MODIFIED BITUMEN SELF-ADHESIVE NON-REINFORCED MEMBRANE FOR WATERPROOFING

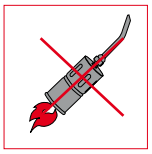
ULTRAFLEX SA NB self-adhesive non-reinforced SBS-modified bitumen membrane is designed for the waterproofing of foundations and engineering structures as well as for indoor waterproofing.

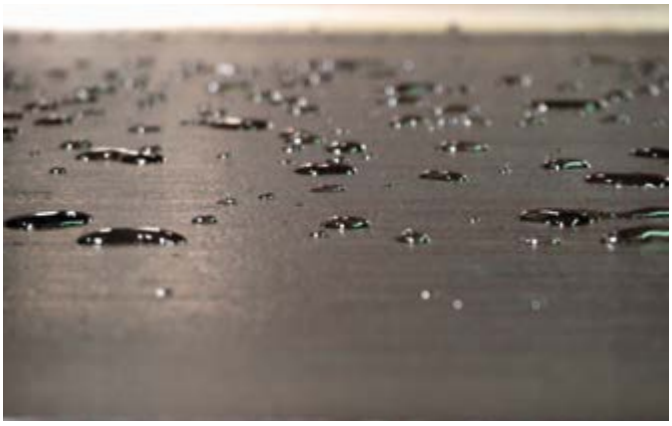
The material is produced by placing a special self-adhesive polymer-bitumen binder on a thick polymer film that coats the material on top. The other side of the material is coated with a removable protective film. The absence of a carrier is a key feature of this material that makes it very elastic and flexible.

ULTRAFLEX SA NB waterproofing material has the following advantages:

- it can be used on the surfaces where the standard torch-on application is forbidden (wood, XPS, etc.);
- high speed of application;
- no need for any additional equipment and skills;
- safe and cheap application – the membrane is applied without the use of gas and flame;
- it can can be used for indoor waterproofing.







PROPERTIES	TEST METHOD	ULTRAFLEX SA NB
Thickness, mm	EN 1849-1	1.5±0.10
Mass per unit area, kg/m²	EN 1849-1	1.5±0.25
Length x width, m	EN 1848-1	20 x 1
Softening point, °C	ASTM D36	≥100
Flexibility at low temperature, °C	EN 1109-1	≤-15
Flow resistance at elevated temperature, °C	EN 1110	≥85
Elongation at break L / T, %	ASTM D5147	≥200 / ≥200
Determination of shear resistance of joints, kN/m	EN 12317-1	≥2.0
Peel resistance of joints: overlap to overlap / overlap to film, N/50 mm	EN 12316-1	- / ≥25
Reinforcement type	-	carrierless
Protective coating type on the top	-	thick polymer film
Protective coating type at the bottom	-	anti-adhesion film

ULTRAFLEX SA NBS

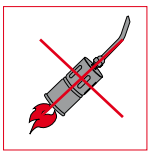
SBS MODIFIED BITUMEN SELF-ADHESIVE NON-REINFORCED MEMBRANE FOR INDOOR WATERPROOFING

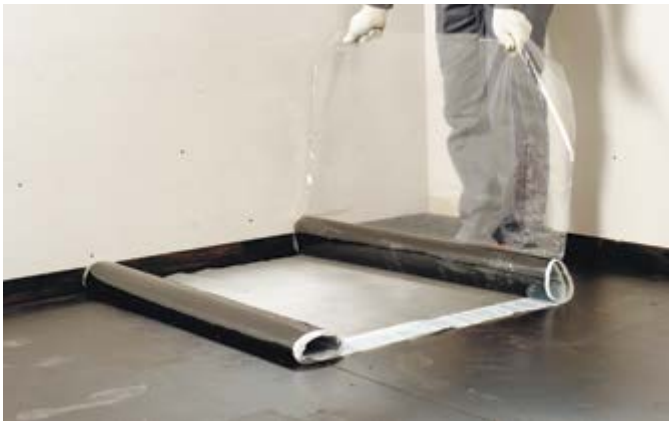
ULTRAFLEX SA NBS self-adhesive non-reinforced SBS-modified bitumen membrane with spunbond as the top protective layer is designed for indoor waterproofing.

The material is produced by placing a special self-adhesive binder on the spunbond that coats the material on top. The other side of the material is coated with a removable protective film.

ULTRAFLEX SA NBS waterproofing material has the following advantages:

- it is used for indoor waterproofing with a direct installation of ceramic tiles onto the material without the need of protective sand cement screed;
- high speed of application;
- safe and cheap application – the membrane is applied without the use of gas and flame;
- no need for any additional equipment and skills;
- cold application method prevents smoke, odors and noise and makes it suitable for indoor works.





PROPERTIES	TEST METHOD	ULTRAFLEX SA NBS
Thickness, mm	EN 1849-1	1.5±0.10
Mass per unit area, kg/m²	EN 1849-1	1.5±0.25
Length x width, m	EN 1848-1	20 x 1
Softening point, °C	ASTM D36	≥100
Flexibility at low temperature, °C	EN 1109-1	≤-15
Flow resistance at elevated temperature, °C	EN 1110	≥85
Elongation at break L / T, %	ASTM D5147	≥60 / ≥60
Determination of shear resistance of joints, kN/m	EN 12317-1	≥2.0
Peel resistance of joints: overlap to overlap / overlap to film, N/50 mm	EN 12316-1	≥25 / -
Reinforcement type	-	carrierless
Protective coating type on the top	-	spunbond
Protective coating type at the bottom	-	anti-adhesion film

UNDERLAY NEXT FIX

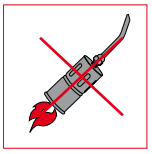
SBS-MODIFIED BITUMEN MECHANICALLY FASTENED NON-REINFORCED UNDERLAY MEMBRANE FOR PITCHED ROOFS

UNDERLAY NEXT FIX mechanically fastened non-reinforced SBS-modified bitumen membrane is used as an underlay on pitched roofs with a continuous rigid wood decking (OSB-3, plywood, tongue and groove planks).

The top side of the material is coated with a strong multilayer polypropylene fabric. The metallized film on the bottom side provides additional nail shank tear resistance.

UNDERLAY NEXT FIX waterproofing material has the following advantages:

- longitudinal self-adhesive mounting strips on the bottom side ensure tight adhesion of layers and reduce installation time;
- multilayer polypropylene fabric prevents the installers from slipping off a pitched roof;
- lightweight material;
- special marking lines on the fabric make the following installation of the roofing shingles easier.



PROPERTIES	TEST METHOD	UNDERLAY NEXT FIX
Mass per unit area, kg/m²	EN 1849-1	0.7±0.1
Length x width, m	EN 1848-1	30 × 1.1
Softening point, °C	ASTM D36	≥100
Flexibility at low temperature, °C	EN 1109-1	≤-15
Flow resistance at elevated temperature, °C	EN 1110	≥90
Elongation at break L / T, %	EN 12311-1	20±10 / 20±10
Tensile strength L / T, N/50 mm	EN 12311-1	600±200 / 600±200
Tear resistance L / T, N	EN 12310-1	500±100 / 500±100
Peel resistance of joints: overlap to film, N/50 mm	EN 12316-1	40±15
Reinforcement type	-	carrierless
Protective coating type on the top	-	multilayer polypropylene fabric
Protective coating type at the bottom	-	metallized film + bitumen self-adhesive strips

UNDERLAY NEXT SELF

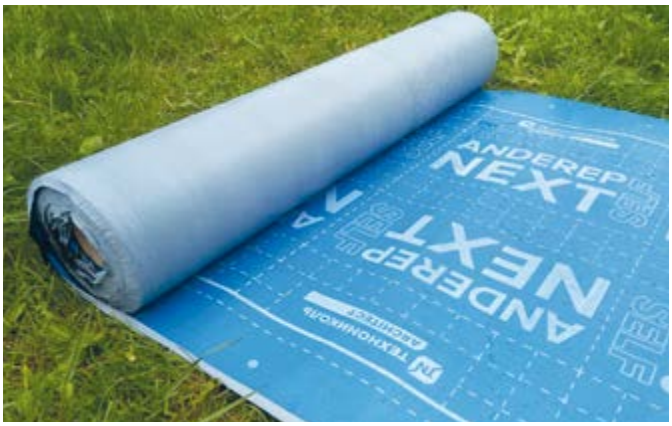
SBS-MODIFIED BITUMEN SELF-ADHESIVE NON-REINFORCED UNDERLAY MEMBRANE FOR PITCHED ROOFS

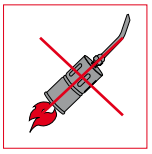
UNDERLAY NEXT SELF self-adhesive non-reinforced SBS-modified bitumen membrane is used as an underlay on pitched roofs with a continuous rigid wood decking (OSB-3, plywood, tongue and groove planks).

The top side of the material is coated with a strong multilayer polypropylene fabric. The self-adhesive binder on the bottom side is coated with an easily removable protective film.

UNDERLAY NEXT SELF waterproofing material has the following advantages:

- it gets stuck well to the top surface and does not require the use of adhesive mastic on the overlaps;
- multilayer polypropylene fabric prevents the installers from slipping off a pitched roof;
- lightweight material with fast and easy application;
- special marking lines on the fabric make the following installation of the roofing shingles easier.





PROPERTIES	TEST METHOD	UNDERLAY NEXT SELF
Mass per unit area, kg/m²	EN 1849-1	1.0±0.1
Length x width, m	EN 1848-1	25 × 1
Softening point, °C	ASTM D36	≥100
Flexibility at low temperature, °C	EN 1109-1	≤-15
Flow resistance at elevated temperature, °C	EN 1110	≥90
Elongation at break L / T, %	EN 12311-1	20±10 / 20±10
Tensile strength L / T, N/50 mm	EN 12311-1	600±200 / 600±200
Tear resistance L / T, N	EN 12310-1	500±100 / 500±100
Peel resistance of joints: overlap to film, N/50 mm	EN 12316-1	40±15
Reinforcement type	-	carrierless
Protective coating type on the top	-	multilayer polypropylene fabric
Protective coating type at the bottom	-	anti-adhesion film

VAPORSTOP CA 500

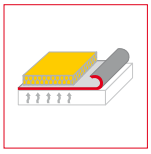
SBS MODIFIED BITUMEN SELF-ADHESIVE VAPOR BARRIER

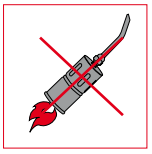
VAPORSTOP CA 500 flexible reinforced SBS-modified bitumen membrane is used as a high-performance vapor barrier in roof waterproofing systems.

The material is produced on the basis of a glass net carrier coated with SBS-modified self-adhesive bitumen binder. The membrane is protected on the bottom side with an easily removable siliconized film, while the top surface is coated with aluminium foil.

VAPORSTOP CA 500 vapor barrier has the following advantages:

- it provides very effective vapor insulation;
- high tensile strength makes it possible to walk on the material during its installation;
- reliable adhesive properties prevent the material from shifting and make it invulnerable to the wind load;
- high speed of application;
- no need for any additional equipment and skills;
- high repairability.





PROPERTIES	TEST METHOD	VAPORSTOP CA 500
Mass per unit area, kg/m²	EN 1849-1	0.5±0.1
Length x width, m	EN 1848-1	50 x 1.08
Softening point, °C	ASTM D36	≥100
Flexibility at low temperature, °C	EN 1109-1	≤-25
Flow resistance at elevated temperature, °C	EN 1110	≥90
Elongation at break L / T, %	ASTM D5147	≥2.0 / ≥2.0
Tensile strength L / T, N/50 mm	ASTM D5147	600±120 / 600±120
Determination of shear resistance of joints, kN/m	EN 12317-1	≥1.5
Peel resistance of joints: overlap to overlap / overlap to film, N/50 mm	EN 12316-1	≥50
Reinforcement type	-	glass net
Protective coating type on the top	-	aluminium foil
Protective coating type at the bottom	-	anti-adhesion film

MATERIALS FOR SPECIAL APPLICATION

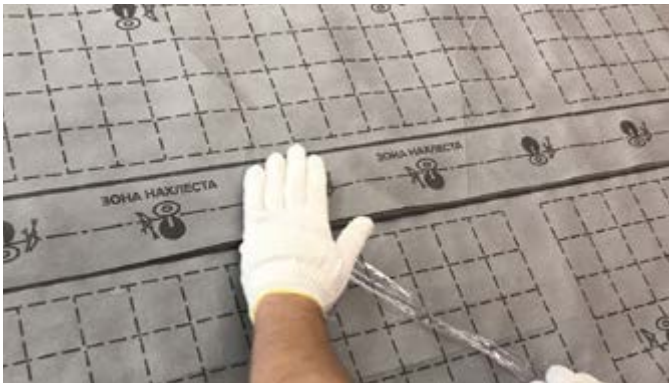
ALPHA ANDEREP

ULTRA-LIGHTWEIGHT MECHANICALLY FASTENED POLYMER UNDERLAYMENT

ALPHA ANDEREP is designed for additional waterproofing of roofs with the main roof area covered with bitumen shingles.

ALPHA ANDEREP is an underlayment with a carrier made of woven polypropylene fabric and non-woven polyolefin layer, with a non-slip surface (non-woven polypropylene fabric) and protection from UV radiation. The self-adhesive strip on the upper side of the material guarantees reliable waterproofing in places of longitudinal overlaps. The strip is protected by an easily removable siliconized film.

- The marking lines on the top side of the material make installation easier, especially in the zones of overlapping;



PROPERTIES	ALPHA ANDEREP
Surface density,	100 - 150 ±5%
Tensile strength L / T, N/50 mm	600 / 400
Vapor permeability per 24 hours, g/m^2	7
Water tightness, method A	pass
UV resistance, months	≥ 3
Length x width, m	46,7 x 1.5 ±1%
Weight of the roll, kg	8.4

TECHNONICOL SOUNDSTOP SUPER

SBS-MODIFIED BITUMEN MEMBRANE FOR IMPACT NOISE INSULATION AND WATERPROOFING OF FLOOR SLABS

TECHNONICOL SOUNDSTOP SUPER fiberglass reinforced SBS-modified bitumen membrane with soundproof fabric prevents the spread of an impact noise, which is transmitted through the floor slabs. The material is used indoors for the installation of a soundproofing and waterproofing layer in the systems of "floating" flooring, heated flooring, flooring with lags and interior partitions. A special non-woven fabric on the bottom side of the membrane imparts effective soundproofing properties to the material, while aluminized film on the top side helps to reduce the influence of electromagnetic fields.

TECHNONICOL SOUNDSTOP SUPER soundproofing membrane has the following advantages:

- high index of impact noise reduction;
- it also serves as the waterproofing layer due to the increased thickness of the bitumen compound;
- the material is resistant to decay;
- the small total thickness of the material allows retaining the same height of the flooring;
- no need for any additional equipment and skills;
- safety and cheap application – the membrane is applied without the use of gas and flame;
- it helps to reduce the influence of electromagnetic fields from the sources placed on adjacent floors.

PROPERTIES	TECHNONICOL SOUNDSTOP SUPER
Mass per unit area, kg/m^2	2.2±0.25
Length x width, m	10 x 1
Maximum impact noise reduction index ΔLn, dB	27
Water resistance at a pressure of 0.2 MPa applied for 2 hours	Pass
Dynamic modulus of elasticity under load of 2 kPa, MPa	≤0.15
Tensile strength, N	≥300
Reinforcement type	glass fiber
Protective coating type on the top	aluminized film
Protective coating type at the bottom	non-woven soundproof fabric

NICOBAND

SELF-ADHESIVE SEALANT TAPE

NICOBAND sealant tape is a very convenient way to seal various cracks and joints. It can also be used to insulate junctions, for roofing repairs and for roof repair systems.

ADVANTAGES:

- Protected from UV radiation. The bitumen layer of NICOBAND sealant tape is protected from UV radiation with aluminum coating. This makes it possible to use the tape outdoor.
- Easy to use and durable. NICOBAND sealant tape is very easy to use and its application requires no special skills. The sealing function of the tape extends for its full lifetime (10 years) thanks to a specially formulated polymer-bitumen binder.
- Different colors. The tape is designed for the most popular roofing colors. It allows performing repairs or maintenance in the tone of the main surface without disturbing its form.

- Flawless adhesion to many different surfaces. The self-adhesive layer provides perfect quality adhesion to many different surfaces: metal, slate, wood, plastic, plaster, concrete, glass, etc.

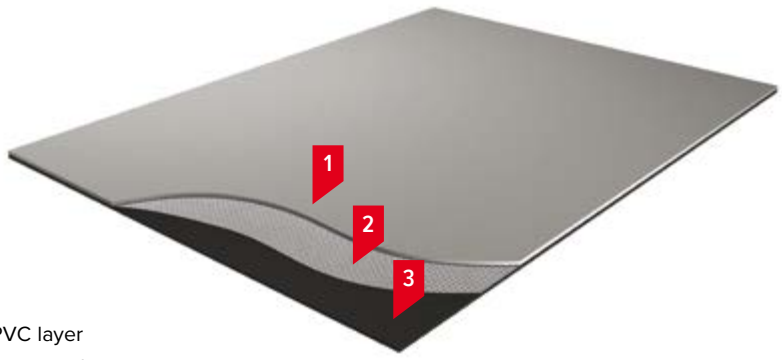
METHOD OF APPLICATION:

The surface must be flat, dry and clean. Cut the tape to required length, remove the protective film, stick the tape to the desired area and press it firmly. If the temperature is below +5°C it is necessary to first keep NICOBAND in room temperature for at least 12 hours before application. The use of the material at sub-zero temperatures requires additional heating of the surface. The use of NICOBAND is not recommended on hot vertical surfaces or on surfaces with a temperature above +80°C.

WIDTH, cm	5	7.5	10	15	20	30
Length: 3 m	+	+	+	+	-	-
Length: 10 m	-	+	+	+	+	+

TAPE DIMENSIONS, mm	PACKAGE SIZE, mm	QUANTITY IN PACKAGE	WEIGHT OF PACKAGE, kg
3000x50	box 240x240x320	24	5.9
3000x75	box 240x240x320	16	5.9
3000x100	box 240x240x320	12	5.9
3000x150	box 240x240x320	8	5.9
10000x75	box 180x180x320	4	5
10000x100	box 180x180x320	3	5
10000x150	box 180x180x320	2	5
10000x200	box 180x180x320	1	3.5
10000x300	box 180x180x320	1	5

SYNTHETIC MEMBRANES



1. Top PVC layer
2. Reinforcement
3. Bottom PVC layer

Synthetic membranes are used for foundation, tunnel and roof waterproofing systems. These reliable and durable waterproofing materials are produced by using the co-extrusion technology - best available at present time. Due to the optical quality control, we can guarantee uniform thickness of the produced membranes. All synthetic membranes of TECHNONICOL have a CE marking. It is a manufacturer's declaration that the product complies with the essential requirements of harmonized European standards.

More than 200,000,000 m^2 of roofs, tunnels and foundations have been protected with various types of TECHNONICOL synthetic waterproofing membranes.

PRODUCTION QUALITY

We produce synthetic membranes with top technical characteristics thanks to:

- our own full-cycle plants with modern equipment;
- progressive extrusion production technology;
- European raw materials of the highest quality;
- contribution of our own research and development centres and laboratories at the plants;
- careful and precise control before, during and after production.

As a result, the client gets a waterproofing material of homogeneous structure without internal defects, ensuring high standards of quality and durability.

CERTIFICATES AND AWARDS

- The quality of TECHNONICOL membranes is confirmed by a number of international certification bodies, such as FM (USA), BBA (UK), SINTEF (Norway), DBA (Netherlands), SKZ (Germany) and many others.
- Certificates of conformity according to harmonized European standards (CE marking according to EN 13956).
- External fire performance test reports (Broof (t1), Broof (t3)).
- Continuous updating and on-going of other certification programs.

UNIQUE SERVICE

Comprehensive approach allows us to provide personalized service to each customer at the highest level:

- wide range of solutions for each technically different project;
- complete range of accessories and components for each individual system;
- on-site supervision and quality control during installation;
- technical advice to partners.

A VERSATILE TOOL FOR SOLVING COMPLEX PROBLEMS

TECHNONICOL synthetic membranes are the quintessence of more than 20 years of technical experience of dedicated specialists, engineers and technologists whose daily work and objective is to embody the ideas of customers: contractors, architects, designers. The company is actively promoting turnkey solutions for waterproofing of roofs, foundations and tunnels. TECHNONICOL is ready to offer a complete system solution that is ideal for each individual project. Moreover, the use of synthetic membranes allows increasing the speed of application due to the roll width of more than 2 m and the possibility of automatic welding.

MATERIAL RANGE

The company is ready to offer a wide range of synthetic membranes, which are distinguished by the area of application:

ROOFING MEMBRANES

- High elasticity for the ease of installation.
- Resistance to punctures and mechanical impacts.
- Reliable protection from UV radiation during the whole service life of the membrane through the TRI-P® system of special protective fire retardants and stabilizers.

UNDERGROUND WATERPROOFING MEMBRANES

- A special signal layer for early detection of a damage to the membrane.
- Possibility to install the material on uneven and wet concrete surfaces.
- Resistance to punctures and mechanical impacts.
- High elasticity for the ease of installation.

DRAINAGE MEMBRANES

- HDPE membranes are produced by the extrusion method.
- A special profiled surface.
- Comprehensive mechanical properties.
- Lightweight and easy to install material for different purposes.

INSTALLATION


1

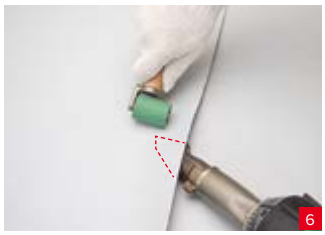

2

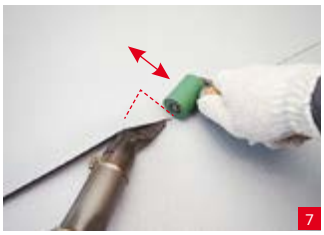

3


4

1. Unroll the membrane and position it with a 12 cm overlap for fasteners. Membranes are marked at the factory with seam overlap lines and fastener location lines for the ease of installation. Half width rolls can be used in the critical perimeter and corner areas of the building.
2. All welded surfaces should be clean and dry. Automatic hot air welding equipment LEISTER VARIMAT is recommended to use for welding the overlaps. Such settings as speed, air flow and welding temperature can be adjusted to accommodate to the variable ambient temperature.
3. Release the lock on the gun mechanism; the nozzle should lay flat on the membrane adjacent to the overlapping membrane. Then slide the nozzle between two membranes until the gun mechanism locks.
4. The machine will now move automatically according to the configured settings.


5


6


7


8

5. The corners of the membranes should be cut with scissors to the round shape. It is recommended to avoid creating cross overlaps of more than three sheets.
6. In case of using a manual hot air welding equipment, it is recommended to perform pre-welding to avoid air leakage from the welding zone. The back edge of the overlap should be welded with a thin continuous pre-weld. To do this, insert the nozzle of the hot air gun and move it quickly along the membrane for the length of the desired welding with one rib of the roller pressing the membrane to the nozzle edge.
7. In order to carry out the final welding, insert the hot air gun into the remaining overlap at a 45° angle. Once the proper welding temperature has been reached and the membrane begins to “flow”, the hand roller is positioned perpendicular to the nozzle and pressed lightly. Move the gun along the overlap, simultaneously move the silicon roller across the joint.
8. In order to check the quality of the weld use a strip (min 30 mm) of 2 welded membranes. Cut out the strip and pull apart 2 welded membranes with your hands. Rupture of a high quality weld should occur on the material along with exposure of the reinforcing net, the weld should not delaminate.

EXAMPLES OF DETAIL WATERPROOFING

TRANSPORTATION AND STORAGE

- Rolls of synthetic membranes are delivered on pallets.
- All rolls of synthetic membranes have white labels identifying the membrane, its thickness, length and width.
- Every roll is packed in an additional individual package.
- Rolls of synthetic membranes should be stored lying down on pallets fully protected from moisture with clean canvas tarpaulins.
- Keep the minimum distance of 1 m from any source of heat.

PVC MEMBRANES

MEMBRANES FOR ROOFING

LOGICROOF V-SR

NON-REINFORCED FLEXIBLE PVC MEMBRANE FOR REINFORCING CORNERS AND SEALING CONNECTIONS BETWEEN DIFFERENT ROOF ELEMENTS

LOGICROOF V-SR is a special PVC membrane without reinforcement, which is designed for reinforcing corners and sealing connections between different roof elements such as piping, funnels, aerators and other protruding objects. The material is welded to the main waterproofing layer with hot air.

The main advantage of this material is its high elasticity. The top layer is featured by a very high resistance to weather factors and UV rays, while the bottom layer offers high resistance to puncture.

PROPERTIES	TEST METHOD	LOGICROOF V-SR
Thickness, mm	EN 1849-2	1.5
Mass per unit area, kg/m^2	EN 1849-2	1.8
Length x width, m	EN 1848-2	20 x 2.1
Tensile strength L / T, MPa	EN 12311-2	≥16 / ≥15
Elongation at break, %	EN 12311-2	≥200
Tear resistance, N	EN 12310-2	≥150
Resistance to static load, kg	EN 12730 B	≥20
Resistance to dynamic impact on a rigid / soft substrate, mm	EN 12691	≥800 / ≥1000
Peel resistance of joints, N/50 mm	EN 12316-2	≥400
Shear resistance of joints, N/50 mm	EN 12317-2	≥700
Foldability at low temperature, °C	EN 495-5	≤-30
Watertightness, kPa	EN 1928-2 B	≥10

LOGICROOF V-RP

POLYESTER REINFORCED PVC MEMBRANE FOR SINGLE-PLY WATERPROOFING OF EXPOSED FLAT ROOFS

LOGICROOF V-RP is a premium quality PVC membrane, which is used for single-ply waterproofing of exposed flat roofs. It is fastened mechanically with hot air welding of overlaps.

LOGICROOF V-RP is a polyester reinforced multi-layer synthetic membrane produced by co-extrusion on the basis of premium quality plasticized polyvinyl chloride (PVC-P). The top layer is featured by a very high resistance to weather factors and UV rays, while the bottom layer offers a high resistance to puncture.

It can be supplied in different colors: grey, white, red, green and blue. A variation with a non-slippery textured surface of the top layer LOGICROOF V-RP (T) is available.

LOGICROOF V-RP FB

GLASS FIBER REINFORCED PVC MEMBRANE WITH LAMINATED GEOTEXTILE FLEECE ON THE BOTTOM FOR SINGLE-PLY WATERPROOFING OF EXPOSED FLAT ROOFS

LOGICROOF V-RP FB is a premium quality PVC membrane with laminated geotextile fleece on the bottom surface, which is designed for use in fully adhered systems. The material is used for single-ply waterproofing of exposed flat roofs.

LOGICROOF V-RP FB is a polyester reinforced multi-layer synthetic membrane produced by co-extrusion on the basis of premium quality plasticized polyvinyl chloride (PVC-P). The top layer is featured by a very high resistance to weather factors and UV rays, while the bottom layer offers a high resistance to puncture.

A variation with a non-slippery textured surface of the top layer LOGICROOF V-RP FB (T) is available.

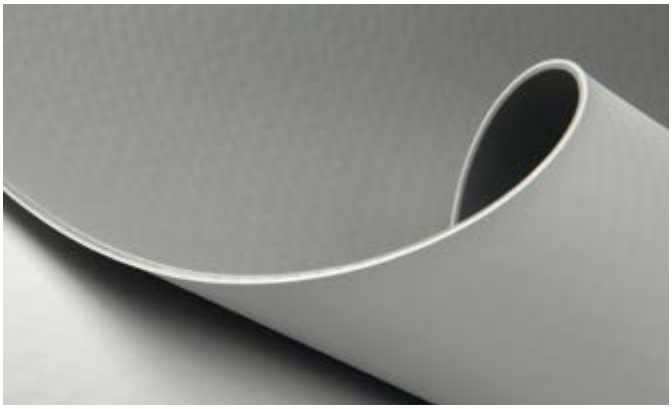
PROPERTIES	TEST METHOD	LOGICROOF V-RP				LOGICROOF V-RP FB	
Thickness, mm	EN 1849-2	1.2	1.5	1.8	2.0	1.5	2.0
Mass per unit area, kg/m^2	EN 1849-2	1.5	1.8	2.2	2.7	1.9	2.8
Length x width, m	EN 1848-2	25 x 2.1	20 x 2.1	15 x 2.1	15 x 2.1	20 x 2.1	15 x 2.1
Tensile strength L / T, N/50 mm	EN 12311-2	≥1100 / ≥900				≥1100 / ≥900	
Elongation at break, %	EN 12311-2	≥18				≥18	
Tear resistance, N	EN 12310-2	≥150				≥150	
Resistance to static load, kg	EN 12730 B	≥20				≥20	
Resistance to dynamic impact on a rigid / soft substrate, mm	EN 12691	≥600 / ≥700	≥800 / ≥1000	≥1100 / ≥1500	≥1400 / ≥1800	≥800 / ≥1000	≥1400 / ≥1800
Peel resistance of joints, N/50 mm	EN 12316-2	≥300				≥300	
Shear resistance of joints, N/50 mm	EN 12317-2	≥700				≥700	
Foldability at low temperature, °C	EN 495-5	≤-30				≤-30	
Watertightness, kPa	EN 1928-2 B	≥10				≥10	

LOGICROOF V-GR

GLASS FIBER REINFORCED PVC MEMBRANE FOR SINGLE-PLY WATERPROOFING OF BALLASTED AND INVERTED NON-EXPOSED FLAT ROOFS

LOGICROOF V-GR is a premium quality glass fiber reinforced PVC membrane, which is used for single-ply waterproofing of ballasted and inverted non-exposed flat roofs. It is loosely laid, while the overlaps are welded with hot air.

LOGICROOF V-GR is a multi-layer synthetic membrane produced by co-extrusion on the basis of premium quality plasticized polyvinyl chloride (PVC-P). Glass fiber reinforcement provides an increased puncture resistance and dimentional stability.



LOGICROOF V-GR FB

GLASS FIBER REINFORCED PVC MEMBRANE WITH LAMINATED GEOTEXTILE FLEECE ON THE BOTTOM FOR SINGLE-PLY WATERPROOFING OF EXPOSED FLAT ROOFS

LOGICROOF V-GR FB is a premium quality PVC membrane with laminated geotextile fleece on the bottom surface, which is designed for use in fully adhered systems. The material is used for single-ply waterproofing of exposed flat roofs. It is fastened with glue, the overlaps should be welded with hot air (each roll has a fleece free edge on one side).

LOGICROOF V-GR FB is a polyester reinforced multi-layer synthetic membrane produced by co-extrusion on the basis of premium quality plasticized polyvinyl chloride (PVC-P).

A variation with a non-slippery textured surface of the top layer LOGICROOF V-GR FB (T) is available.

PROPERTIES	TEST METHOD	LOGICROOF V-GR			LOGICROOF V-GR FB	
Thickness, mm	EN 1849-2	1.5	2.0	2.4	1.5	2.0
Mass per unit area, kg/m^2	EN 1849-2	1.8	2.5	3.2	1.9	2.8
Length x width, m	EN 1848-2	20 x 2.1	15 x 2.1	15 x 2.1	20 x 2.1	15 x 2.1
Tensile strength L / T, N/50 mm	EN 12311-2	≥800 / ≥600			≥800 / ≥600	
Elongation at break, %	EN 12311-2	≥200			≥150	
Tear resistance, N	EN 12310-2	≥180			≥200	
Resistance to static load, kg	EN 12730 B	≥20			≥20	
Resistance to dynamic impact on a rigid / soft substrate, mm	EN 12691	≥800 / ≥1000	≥1400 / ≥1800	≥1500 / ≥1900	≥800 / ≥1000	≥1400 / ≥1800
Peel resistance of joints, N/50 mm	EN 12316-2	≥350			≥350	
Shear resistance of joints, N/50 mm	EN 12317-2	≥700			≥700	
Foldability at low temperature, °C	EN 495-5	≤-25			≤-25	
Watertightness, kPa	EN 1928-2 B	≥10			≥10	

MEMBRANES FOR UNDERGROUND WATERPROOFING

LOGICBASE V-SL

NON-REINFORCED PVC MEMBRANE FOR UNDERGROUND WATERPROOFING

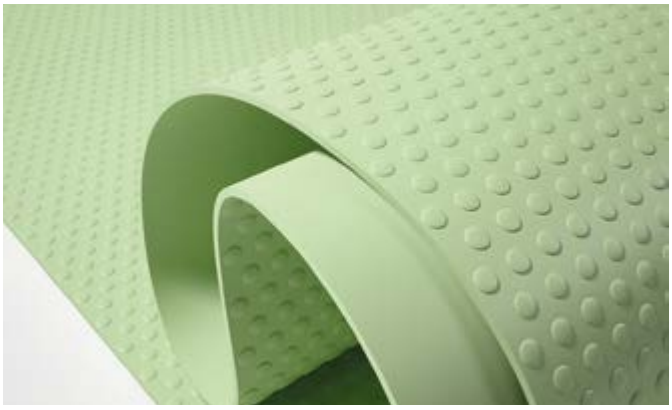
LOGICBASE V-SL is a premium quality PVC membrane, which is used for the waterproofing of tunnels, foundations, underground parts of buildings and structures. Sheets of the membrane are welded together with hot air. On the walls and tunnel arches, the material is fastened mechanically with PVC rondels.

LOGICBASE V-SL is a non-reinforced synthetic membrane produced by co-extrusion on the basis of premium quality plasticized polyvinyl chloride (PVC-P). Yellow signal layer on the top surface of the material allows detecting waterproofing layer damage promptly and easily. The advantages of the material are durability, high strength and elasticity, resistance to mechanical impact and high chemical stability.

LOGICBASE V-ST

NON-REINFORCED PVC MEMBRANE USED AS THE SECOND LAYER IN DOUBLE-LAYER PVC WATERPROOFING SYSTEMS WITH VACUUM QUALITY CONTROL

LOGICBASE V-ST is a special PVC membrane, which is used for the waterproofing of tunnels, foundations, underground parts of buildings and structures as the second layer in double-layer PVC waterproofing systems with vacuum quality control. It is also used as a protective layer for PVC waterproofing systems. The material is welded with hot air to the main waterproofing layer. Overlap seams are welded by hot air welding equipment.



LOGICBASE V-ST is a non-reinforced synthetic membrane produced by co-extrusion on the basis of premium quality plasticized polyvinyl chloride (PVC-P). A specially textured surface of the material prevents two membranes of a double-layer waterproofing system from sticking together during vacuum quality control.

PROPERTIES	TEST METHOD	LOGICBASE V-SL		LOGICBASE V-ST
Thickness, mm	EN 1849-2	1.5	2.0	1.6
Mass per unit area, kg/m^2	EN 1849-2	2.0	2.7	1.9
Length x width, m	EN 1848-2	20 x 2.1		20 x 2.1
Tensile strength L / T, MPa	EN 12311-2	≥16 / ≥15		≥14 / ≥11
Elongation at break, %	EN 12311-2	≥300		≥300
Tear resistance, N	EN 12310-2	≥150		≥150
Resistance to static load, kg	EN 12730 B	≥20		≥20
Resistance to dynamic impact on a rigid / soft substrate, mm	EN 12691	≥700 / ≥1000	≥1400 / ≥1800	≥700 / ≥1000
Peel resistance of joints, N/50 mm	EN 12316-2	≥300		≥300
Shear resistance of joints, N/50 mm	EN 12317-2	≥700		≥700
Foldability at low temperature, °C	EN 495-5	≤-30		≤-30
Watertightness, kPa	EN 1928-2 B	≥60		≥60

LOGICBASE V-PT

NON-REINFORCED PVC MEMBRANE USED AS A PROTECTIVE LAYER FOR PVC WATERPROOFING SYSTEMS

LOGICBASE V-PT is a special PVC membrane, which is used as a protective layer for PVC waterproofing systems. The material is welded with hot air to the main waterproofing layer at certain points along the whole area. Overlap seams are welded by hot air welding equipment.

LOGICBASE V-PT is a non-reinforced synthetic membrane produced by co-extrusion on the basis of premium quality plasticized polyvinyl chloride (PVC-P). High impact resistance of the material ensures a reliable protection for the main waterproofing layer from mechanical damage during construction works.

ECOBASE V-UV

NON-REINFORCED SINGLE-LAYER PVC MEMBRANE FOR WATERPROOFING OF UNDERGROUND STRUCTURES AND DAMAGE RESERVOIRS

ECOBASE V-UV is a high-quality PVC membrane, which is used for the waterproofing of foundations, underground parts of buildings and structures. It is also used for the waterproofing of artificial reservoirs. The membrane sheets are welded together with hot air. On the walls and tunnel arches, the material is fastened mechanically with PVC rondels.

ECOBASE V-UV is a non-reinforced single-layer synthetic membrane produced by co-extrusion on the basis of high-quality plasticized polyvinyl chloride (PVC-P).

Due to UV resistance, it can be used for exposed application.

PROPERTIES	TEST METHOD	LOGICBASE V-PT		ECOBASE V-UV	
Thickness, mm	EN 1849-2	1.5	2.0	1.5	2.0
Mass per unit area, kg/m^2	EN 1849-2	2.0	2.6	2.0	2.6
Length x width, m	EN 1848-2	20 x 2.1		20 x 2.1	
Tensile strength L / T, MPa	EN 12311-2	≥12 / ≥10		≥12 / ≥10	
Elongation at break, %	EN 12311-2	≥200		≥200	
Tear resistance, N	EN 12310-2	≥150		≥150	
Resistance to static load, kg	EN 12730 B	≥20		≥20	
Resistance to dynamic impact on a rigid / soft substrate, mm	EN 12691	≥700 / ≥1000	≥1400 / ≥1800	≥700 / ≥1000	≥1400 / ≥1800
Peel resistance of joints, N/50 mm	EN 12316-2	≥300		≥300	
Shear resistance of joints, N/50 mm	EN 12317-2	≥700		≥600	
Foldability at low temperature, °C	EN 495-5	≤-25		≤-25	
Watertightness, kPa	EN 1928-2 B	≥60		≥60	

TPO MEMBRANES

MEMBRANES FOR ROOFING

LOGICROOF P-RP

A synthetic waterproofing membrane produced by co-extruding a UV resistant elastomerised TPO/FPA thermoplastic olefin and flexible polypropylene alloy with a polyester net reinforcing mat. The membrane features contrasting colours on its upper and lower faces, providing a signal layer so that any damage occurring during or after installation will be immediately apparent.

It is available in BIANCO REFLECTA version, manufactured with the upper side of the membrane (top) in WHITE REFLECTA colour, by means of a treatment developed in mass in the entire layer that covers the top of the reinforcement. This process enhances the reflectance and emission features giving the roof a Solar Reflectance Index (SRI) value that reaches 102%. It is also available in the fire resistant versions (external fire behaviour), in Broof class according to EN 13501-5: LOGICROOF P-RP/FR1, LOGICROOF P-RP/FR2, LOGICROOF P-RP/FR3 (consult the specific data sheet - LOGICROOF P-RP/FR). LOGICROOF P-RPmembranes comply with CE marking requirements, if applicable.

PROPERTIES	TEST METHOD	PERFORMANCE			
Standard thickness, mm	EN 1849-2	1,2	1,5	1,8	2,0
SRI – Solar Reflectance Index, %	ASTM Standard E1980	102 (1)			
Tensile strength L/T, N/50 mm	EN 12311-2	1100			
Elongation at break L/T, %	EN 12311-2	25			
Dimensional stability, %	EN 1107-2	≤ 0.5			
Cold flexibility, °C	EN 495/5	≤ -40			
Tear resistance L/T, N	EN 12310/1	550 / 650			
Water vapour permeability (resistance factor μ)	EN 1931	50.000			
Resistance to static loading, kg	EN 12730/B	≥ 25			
Resistance to impact, mm	EN 12691/B	≥ 1200			
Hail resistance, m/s	EN 13583	≥ 30			
Water tightness (60 kPa)	EN 1928	Absolute			
Joint strength: Tensile strength, N/cm	EN 12317-2	Compliant (specimen fails outside bond area)			
Joint strength: Peeling, N/cm	EN 12316-2	≥ 58			
Resistance to artificial UV light	EN 1297-5000 h	No surface damage or significant changes in cold flexibility as per EN 495/5			
Reaction to fire	EN 13501-1	Class E			
Behaviour to external fire	EN 13501-5	Froof (2)			
Resistance to algae and microorganisms	ISO 846 Level 2	Compliant			
Root resistance	EN 13948	Passes the test			

(1) Reflecta White version

(2) Also available in the fire resistant versions (external fire behaviour), in Broof class according to EN 13501-5: LOGICROOF P-RP/FR2, LOGICROOF P-RP/FR3

LOGICROOF P-RP FB

A synthetic waterproofing membrane produced by co-extruding a UV resistant elastomeric TPO/FPA thermoplastic olefin and flexible polypropylene alloy, with a polyester net reinforcement bonded on the lower face with nonwoven polyester fabric. The membrane features contrasting colours on its upper and lower faces, providing a signal layer so that any damage occurring during or after installation will be immediately apparent.

It is available in BIANCO REFLECTA version, manufactured with the upper side of the membrane (top) in WHITE REFLECTA colour, by means of a treatment developed in mass in the entire layer that covers the top of the reinforcement. This process enhances the reflectance and emission features giving the roof a Solar Reflectance Index (SRI) value that reaches 102%.

LOGICROOF P-RP FB membranes comply with CE marking requirements, if applicable..

SPECIFIC USE:

- Mechanically retained waterproofing on exposed roofs.
- Waterproofing layers applied independently under heavy-duty fixed or movable protection for: roofing exposed to foot traffic; inverted roofs.

PROPERTIES	TEST METHOD	PERFORMANCE			
Standard thickness, mm	EN 1849-2	1,2	1,5	1,8	2,0
Tensile strength L/T, N/50 mm	EN 12311-2	1100 / 1100			
Elongation at break L/T, %	EN 12311-2	25 / 25			
Dimensional stability, %	EN 1107-2	≤ 0.5 / 0.5			
Cold flexibility, °C	EN 495/5	≤ -40			
Tear resistance L/T, N	EN 12310/1	550 / 650 (*)			
Water vapour permeability (resistance factor μ)	EN 1931	50.000			
Resistance to static loading, kg	EN 12730/B	≥ 25 (*)			
Resistance to impact, mm	EN 12691/B	≥ 1800 (*)			
Hail resistance, m/s	EN 13583	≥ 30			
Water tightness (60 kPa)	EN 1928	Absolute			
Joint strength: Tensile strength, N/cm	EN 12317-2	Compliant (specimen fails outside bond area)			
Joint strength: Peeling, N/cm	EN 12316-2	≥ 58			
Resistance to artificial UV light	EN 1297-5000 h	No surface damage or significant changes in cold flexibility as per EN 495/5			
Change in tensile strength, Δ%	EN 12311-2	-5			
Change in elongation at break, Δ%	EN 12311-2	-5			
Reaction to fire	EN 13501-1	Class F			
Resistance to algae and microorganisms	ISO 846 Level 2	Compliant			
Root resistance	EN 13948	Passes the test			

(*) The values indicated refer to the TPO / FPA membrane without nonwoven polyester fabric backing, except for the values marked with an asterisk (*), that refer to the finished product.

LOGICROOF P-GR

A synthetic waterproofing membrane produced by co-extruding a UV resistant elastomerised TPO/FPA thermoplastic olefin and flexible polypropylene alloy with a fibreglass reinforcing mat that makes it dimensionally stable. The membrane features contrasting colours on its upper and lower faces, providing a signal layer so that any damage occurring during or after installation will be immediately apparent.

It is available in BIANCO REFLECTA version, manufactured with the upper side of the membrane (top) in WHITE REFLECTA colour, by means of a treatment developed in mass in the entire layer that covers the top of the reinforcement. This process enhances the reflectance and emission features giving the roof a Solar Reflectance Index (SRI) value that reaches 102%.

It is also available in the fire resistant versions (external fire behaviour), in Broof class according to EN 13501-5: LOGICROOF P-GR/FR1, LOGICROOF P-GR/FR2, LOGICROOF P-GR/FR3, LOGICROOF P-GR/FR4 (consult the specific data sheet - LOGICROOF P-GR/FR). SINTOFOIL RG membranes comply with CE marking requirements, if applicable.

PROPERTIES	TEST METHOD	PERFORMANCE			
Standard thickness, mm	EN 1849-2	1,2	1,5	1,8	2,0
SRI – Solar Reflectance Index, %	ASTM Standard E1980	102 (1)			
Tensile strength L/T, N/50 mm	EN 12311-2	600 / 550	650 / 600	750 / 750	800 / 800
Elongation at break L/T, %	EN 12311-2	700 / 700			
Dimensional stability, %	EN 1107-2	≤ 0.1			
Cold flexibility, °C	EN 495/5	≤ -40			
Tear resistance L/T, N	EN 12310/1	390 / 290	450 / 400	500 / 450	600 / 550
Water vapour permeability (resistance factor μ)	EN 1931	50.000			
Resistance to static loading, kg	EN 12730/B	≥ 25			
Resistance to impact, mm	EN 12691/B	≥ 1000			
Hail resistance, m/s	EN 13583	≥ 30			
Water tightness (60 kPa)	EN 1928	Absolute			
Joint strength: Tensile strength, N/cm	EN 12317-2	Compliant (specimen fails outside bond area)			
Joint strength: Peeling, N/cm	EN 12316-2	≥ 58			
Resistance to artificial UV light	EN 1297-5000 h	No surface damage or significant changes in cold flexibility as per EN 495/5			
Change in tensile strength, Δ%	EN 12311-2	-5			
Change in elongation at break, Δ%	EN 12311-2	-5			
Reaction to fire	EN 13501-1	Class E			
Behaviour to external fire	EN 13501-5	Froof (2)			
Resistance to algae and microorganisms	ISO 846 Level 2	Compliant			
Root resistance	EN 13948	Passes the test			

(1) Reflecta White version

(2) Also available in the fire resistant versions (external fire behaviour), in Broad class according to EN 13501-5: LOGICROOF P-GR/FR 1,LOGICROOF P-GR/FR 2, LOGICROOF P-GR/FR3, LOGICROOF P-GR/FR4.

LOGICROOF P-GR FB

A synthetic waterproofing membrane produced by co-extruding a UV resistant elastomeric TPO/FPA thermoplastic olefin and flexible polypropylene alloy, with a fibreglass reinforcement bonded on the lower face with nonwoven polyester fabric that makes it dimensionally stable. The membrane features contrasting colours on its upper and lower faces, providing a signal layer so that any damage occurring during or after installation will be immediately apparent.

It is also available in BIANCO REFLECTA version, manufactured with the upper side of the membrane (top) in WHITE REFLECTA colour, by means of a treatment developed in mass in the entire layer that covers the top of the reinforcement. This process enhances the reflectance and emission features giving the roof a Solar Reflectance Index (SRI) value that reaches 102%. LOGICROOF P-GR FB membranes comply with CE marking requirements, if applicable.

SPECIFIC USE:

- Waterproofing layers applied independently under heavy-duty fixed or movable protection for: roofing exposed to foot and vehicular traffic; roof gardens.
- Mechanically retained waterproofing for: exposed roofs.
- Implementation of roofing systems in total adhesion by means of gluing.

PROPERTIES	TEST METHOD	PERFORMANCE			
Standard thickness, mm	EN 1849-2	1,2	1,5	1,8	2,0
Tensile strength L/T, N/50 mm	EN 12311-2	600 / 550	650 / 600	750 / 750	800 / 800
Elongation at break L/T, %	EN 12311-2	700 / 700			
Dimensional stability, %	EN 1107-2	≤ 0.1			
Cold flexibility, °C	EN 495/5	≤ -40			
Tear resistance L/T, N	EN 12310/1	500/450 (*)	650/600 (*)	650/600 (*)	850/800 (*)
Water vapour permeability (resistance factor μ)	EN 1931	50.000			
Resistance to static loading, kg	EN 12730/B	≥ 25 (*)			
Resistance to impact, mm	EN 12691/B	≥ 1000 (*)			
Hail resistance, m/s	EN 13583	≥ 30			
Water tightness (60 kPa)	EN 1928	Absolute			
Joint strength: Tensile strength, N/cm	EN 12317-2	Compliant (specimen fails outside bond area)			
Joint strength: Peeling, N/cm	EN 12316-2	≥ 58			
Resistance to artificial UV light	EN 1297-5000 h	No surface damage or significant changes in cold flexibility as per EN 495/5			
Change in tensile strength, Δ%	EN 12311-2	-5			
Change in elongation at break, Δ%	EN 12311-2	-5			
Reaction to fire	EN 13501-1	Class F			
Resistance to algae and microorganisms	ISO 846 Level 2	Compliant			
Root resistance	EN 13948	Passes the test			

(*) The values indicated refer to the TPO / FPA membrane without nonwoven polyester fabric backing, except for the values marked with an asterisk (*), that refer to the finished product.

LOGICROOF P-SR

A synthetic waterproofing membrane produced by co-extruding a uniform UV resistant elastomeric TPO/FPA thermoplastic olefin and flexible polypropylene alloy.

The membrane features contrasting colours on its upper and lower faces, providing a signal layer so that any damage occurring during or after installation will be immediately apparent. LOGICROOF P-SR membranes comply with CE marking requirements, if applicable.

LOGICBASE P membranes are designed for easy bonding with a hot air gun, as no adhesives or other materials of any kind are required.

SPECIFIC USE:

- Waterproofing layers applied independently under heavy-duty fixed or movable protection for roofing exposed to foot traffic and roof gardens.
- Mechanically fastened waterproofing on exposed roofs.

PROPERTIES	TEST METHOD	PERFORMANCE			
Standard thickness, mm	EN 1849-2	1,2	1,5	1,8	2,0
Tensile strength L/T, N/mm^2	EN 12311-2	16 / 15			
Elongation at break L/T, %	EN 12311-2	700 / 700			
Dimensional stability, %	EN 1107-2	≤ 0.5			
Cold flexibility, °C	EN 495/5	≤ -40			
Tear resistance L/T, N	EN 12310/1	330 / 240	450 / 400	550 / 500	650 / 600
Water vapour permeability (resistance factor μ)	EN 1931	90.000			
Resistance to static loading, kg	EN 12730/B	≥ 25			
Resistance to impact, mm	EN 12691/B	≥ 1000			
Hail resistance, m/s	EN 13583	≥ 30			
Water tightness (60 kPa)	EN 1928	Absolute			
Joint strength: Tensile strength, N/cm	EN 12317-2	Compliant (specimen fails outside bond area)			
Joint strength: Peeling, N/cm	EN 12316-2	≥ 58			
Resistance to artificial UV light	EN 1297-5000 h	No surface damage or significant changes in cold flexibility as per EN 495/5			
Change in tensile strength, Δ%	EN 12311-2	-5			
Change in elongation at break, Δ%	EN 12311-2	-5			
Reaction to fire	EN 13501-1	Class E			
Resistance to algae and microorganisms	ISO 846 Level 2	Compliant			
Root resistance	EN 13948	Passes the test			
Contact with drinking water (DW)	Contact with drinking water (DW) Italian Ministerial Decree 26-04-93 n. 220 - O.J. no. 162 / 13-07-1993 and subsequent amendments	Suitable			

LOGICROOF P-SR FB

A synthetic waterproofing membrane produced by co-extruding a uniform UV resistant elastomerised TPO/FPA thermoplastic olefin and flexible polypropylene alloy, bonded on the lower face to a nonwoven polyester fabric reinforcing mat. The membrane features contrasting colours on its upper and lower faces, providing a signal layer so that any damage occurring during or after installation will be immediately apparent.

It is available in BIANCO REFLECTA version, manufactured with the upper side of the membrane (top) in WHITE REFLECTA colour, by means of a treatment developed in mass in the entire layer that covers the top of the reinforcement. This process enhances the reflectance and emission features giving the roof a Solar Reflectance Index (SRI) value that reaches 102%. LOGICROOF P-SR FB membranes comply with CE marking requirements, if applicable.

SPECIFIC USE:

- Adhesive bonded waterproofing on exposed roofing, applied with specific FB/SF ADHESIVE.
- Refurbishment of waterproof bitumen covering materials.
- Waterproofing layers applied independently under heavy-duty fixed or movable protection for: roofing exposed to foot traffic and roof gardens.
- Mechanically fastened waterproofing on exposed roofs.

PROPERTIES	TEST METHOD	PERFORMANCE			
Standard thickness, mm	EN 1849-2	1,2	1,5	1,8	2,0
Tensile strength L/T, N/mm^2	EN 12311-2	16 / 15			
Elongation at break L/T, %	EN 12311-2	700 / 700			
Dimensional stability, %	EN 1107-2	≤ 0.5			
Cold flexibility, °C	EN 495/5	≤ -40			
Tear resistance L/T, N	EN 12310/1	450/400 (*)	650/600 (*)	800/750 (*)	900/850 (*)
Water vapour permeability (resistance factor μ)	EN 1931	90.000			
Resistance to static loading, kg	EN 12730/B	≥ 25 (*)			
Resistance to impact, mm	EN 12691/B	≥ 1800 (*)			
Hail resistance, m/s	EN 13583	≥ 30			
Water tightness (60 kPa)	EN 1928	Absolute			
Joint strength: Tensile strength, N/cm	EN 12317-2	Compliant (specimen fails outside bond area)			
Joint strength: Peeling, N/cm	EN 12316-2	≥ 58			
Resistance to artificial UV light	EN 1297-5000 h	No surface damage or significant changes in cold flexibility as per EN 495/5			
Change in tensile strength, Δ%	EN 12311-2	-5			
Change in elongation at break, Δ%	EN 12311-2	-5			
Reaction to fire	EN 13501-1	Class F			
Resistance to algae and microorganisms	ISO 846 Level 2	Compliant			
Root resistance	EN 13948	Passes the test			

(*) The values indicated refer to the TPO / FPA membrane without nonwoven polyester fabric backing, except for the values marked with an asterisk (*), that refer to the finished product.

MEMBRANES FOR UNDERGROUND WATERPROOFING

LOGICBASE P-SL

A synthetic waterproofing membrane produced by co-extruding a uniform highly flexible elastomeric polyolefin alloy.

The membrane features contrasting colours on its upper and lower faces, providing a signal layer so that any damage occurring during or after installation will be immediately apparent. It is not UV resistant. LOGICBASE P-SL membranes comply with CE marking requirements, if applicable.

LOGICBASE TPO/FPA membranes are welded by hot air welding equipment, such as manual or automatic hot air welding machines with temperature control.

SPECIFIC USE:

- LOGICBASE P-SL membrane is recommended for waterproofing of underground structures: foundations, retaining walls, natural and artificial tunnels.

PROPERTIES	TEST METHOD	PERFORMANCE		
Standard thickness, mm	EN 1849-2	1,5	1,8	2,0
Density, kg/m^2	EN 1849-2	1,35	1,62	1,80
Tensile strength L/T, N/50 mm	12311-2/ISO 527		15 / 15	
Elongation at break L/T, %	12311-2/ISO 527		600 / 600	
Dimensional stability, %	EN 1107-2		≤ 0.5	
Cold flexibility, °C	EN 495/5		≤ -40	
Tear resistance L/T, N	EN 12310/1	450 / 400	550 / 500	650 / 600
Resistance to static loading, kg	EN 12730/B		≥ 25	
Water tightness (60 kPa)	EN 1928		Absolute	
Joint strength: Tensile strength, N/cm	EN 12317-2		Compliant (specimen fails outside bond area)	
Joint strength: Peeling, N/cm	EN 12316-2		≥ 58	
Durability: Waterproofing after thermal ageing	EN 1926 EN 1928		Passes the test at 60 kPa	
Resistance to algae and microorganisms	ISO 846 Level 2		Compliant	
Root resistance	EN 13948		Passes the test	

PRODUCTION STANDARDS				
Thickness (*)	mm	1,5	1,8	2,0
Width	m	2.10	2.10	2.10
Length (*)	m	25	20	20
Color (*)			Beige / Black	

(*) Different thicknesses, lengths and colors are available on demand and for minimum quantities.

LOGICBASE P-PT

A synthetic membrane produced by co-extruding a uniform highly flexible elastomerised polyolefin alloy. It is not UV resistant.

It is recommended as a protective layer of synthetic waterproofing systems in TPO/FPA for underground works.

Sintofoil membranes are designed for easy bonding with a hot air gun, as no adhesives or other materials of any kind are required.

LOGICBASE TPO/FPA membranes are welded by hot air welding equipment, such as manual or automatic hot air welding machines with temperature control.

SPECIFIC USE:

- The LOGICBASE P-PT membrane is suitable for the protection of waterproofing systems for underground works: foundations, retaining walls.

PROPERTIES	TEST METHOD	PERFORMANCE
Standard thickness, mm	EN 1849-2	2,0
Density, kg/m^2	EN 1849-2	1,80
Tensile strength L/T, N/50 mm	12311-2/ISO 527	15 / 15
Elongation at break L/T, %	12311-2/ISO 527	600 / 600
Dimensional stability, %	EN 1107-2	≤ 0.5
Cold flexibility, °C	EN 495/5	≤ -40
Tear resistance L/T, N	EN 12310/1	650 / 600
Resistance to static loading, kg	EN 12730/B	≥ 25
Water tightness (60 kPa)	EN 1928	Absolute
Joint strength: Tensile strength, N/cm	EN 12317-2	Compliant (specimen fails outside bond area)
Joint strength: Peeling, N/cm	EN 12316-2	≥ 58
Durability: Waterproofing after thermal ageing	EN 1926 EN 1928	Passes the test at 60 kPa
Resistance to algae and microorganisms	ISO 846 Level 2	Compliant
Root resistance	EN 13948	Passes the test

PRODUCTION STANDARDS		
Thickness (*)	mm	2.0
Width	m	2.10
Length (*)	m	20
Color (*)		Black

(*) Different thicknesses, lengths and colors are available on demand and for minimum quantities.

LOGICBASE P-ST

A non-reinforced synthetic waterproofing membrane produced by co-extruding a uniform highly flexible elastomerised polyolefin alloy.

It is used for waterproofing of tunnels, foundations, underground parts of buildings and structures as a second layer in double-layer waterproofing systems with vacuum quality control. A specially textured surface of the material prevents two membranes of a double-layer waterproofing system from sticking together during the vacuum quality control. It is not UV resistant.

LOGICBASE P-ST membranes comply with CE marking requirements, if applicable.

LOGICBASE TPO/FPA membranes are welded by hot air welding equipment, such as manual or automatic hot air welding machines with temperature control.

SPECIFIC USE:

- LOGICBASE P-ST membrane is recommended for waterproofing of structures: foundations, retaining walls.

PROPERTIES	TEST METHOD	PERFORMANCE
Standard thickness, mm	EN 1849-2	2,0
Appearance of upper surface		Structured
Density, kg/m^2	EN 1849-2	1,80
Tensile strength L/T, N/50 mm	12311-2/ISO 527	15 / 15
Elongation at break L/T, %	12311-2/ISO 527	600 / 600
Dimensional stability, %	EN 1107-2	≤ 0.5
Cold flexibility, °C	EN 495/5	≤ -40
Tear resistance L/T, N	EN 12310/1	650 / 600
Resistance to static loading, kg	EN 12730/B	≥ 25
Water tightness (60 kPa)	EN 1928	Absolute
Joint strength: Tensile strength, N/cm	EN 12317-2	Compliant (specimen fails outside bond area)
Joint strength: Peeling, N/cm	EN 12316-2	≥ 58
Durability: Waterproofing after thermal ageing	EN 1926 EN 1928	Passes the test at 60 kPa
Resistance to algae and microorganisms	ISO 846 Level 2	Compliant
Root resistance	EN 13948	Passes the test

PRODUCTION STANDARDS		
Thickness (*)	mm	2.0
Width	m	2.10
Length (*)	m	20
Color (*)		Black

(*) Different thicknesses, lengths and colors are available on demand and for minimum quantities.

LOGICBASE P-SL-GR

A synthetic waterproofing membrane produced by co-extruding a uniform highly flexible elastomeric polyolefin alloy with a fiberglass reinforcing mat that makes it dimensionally stable.

The membrane features contrasting colours on its upper and lower faces, providing a signal layer so that any damage occurring during or after installation will be immediately apparent. It is not UV resistant. LOGICBASE P-SL-GR membranes comply with CE marking requirements, if applicable.

Sintofoil membranes are designed for easy bonding with a hot air gun, as no adhesives or other materials of any kind are required.

LOGICBASE TPO/FPA membranes are welded by hot air welding equipment, such as manual or automatic hot air welding machines with temperature control.

SPECIFIC USE:

- LOGICBASE P-SL-GR membrane is recommended for waterproofing of underground structures: foundations, retaining walls.

PROPERTIES	TEST METHOD	PERFORMANCE		
Standard thickness, mm	EN 1849-2	1,5	1,8	2,0
Density, kg/m^2	EN 1849-2	1,37	1,64	1,82
Tensile strength L/T, N/50 mm	12311-2/ISO 527	650 / 600	750 / 750	800 / 800
Elongation at break L/T, %	12311-2/ISO 527		600 / 600	
Dimensional stability, %	EN 1107-2		≤ 0.1	
Cold flexibility, °C	EN 495/5		≤ -40	
Tear resistance L/T, N	EN 12310/1	450 / 400	500 / 450	600 / 550
Resistance to static loading, kg	EN 12730/B		≥ 25	
Water tightness (60 kPa)	EN 1928		Absolute	
Joint strength: Tensile strength, N/cm	EN 12317-2		Compliant (specimen fails outside bond area)	
Joint strength: Peeling, N/cm	EN 12316-2		≥ 58	
Durability: Waterproofing after thermal ageing	EN 1926 EN 1928		Passes the test at 60 kPa	
Resistance to algae and microorganisms	ISO 846 Level 2		Compliant	
Root resistance	EN 13948		Passes the test	

PRODUCTION STANDARDS				
Thickness (*)	mm	1,5	1,8	2,0
Width	m	2.10	2.10	2.10
Length (*)	m	25	20	20
Color (*)			Beige / Black	

(*) Different thicknesses, lengths and colors are available on demand and for minimum quantities.

HDPE MEMBRANES

ULTRABASE PA

PRE-APPLIED HDPE MEMBRANE THAT BONDS TO POURED CONCRETE

ULTRABASE PA is a high-performance pre-applied HDPE membrane designed for waterproofing of foundations, tunnels and other engineering structures. The material represents composite sheets of thick HDPE film with a special adhesive compound that reacts with a wet mortar and gives an excellent integral bonding. The waterproofing membrane bonds directly to the concrete, thus sealing it and preventing any ingress of water around the structure, even in cases of soil sedimentation. ULTRABASE PA membrane does not require protection before backfilling.

Pre-applied HDPE membrane ULTRABASE PA is used for waterproofing of foundations, tunnels, underground parts of buildings and structures in pre-applied systems with liquid concrete pouring on top of the material.

ULTRABASE PA Sand Finish

PRE-APPLIED HDPE MEMBRANE THAT BONDS TO POURED CONCRETE

ULTRABASE PA (Sand finish) is a high-performance pre-applied HDPE membrane designed for waterproofing of foundations, tunnels, and other engineering structures. The material represents composite sheets of thick HDPE film with a special pressure sensitive adhesive compound protected with sand that reacts with a wet mortar and gives an excellent integral bonding. The waterproofing membrane bonds directly to the concrete, thus sealing it and preventing any ingress of water around the structure, even in cases of soil sedimentation.

Pre-applied HDPE membrane ULTRABASE PA (Sand finish) is used for waterproofing of foundations, tunnels, underground parts of buildings and structures in pre-applied systems with liquid concrete pouring on top of the material.

PROPERTIES	TEST METHOD	ULTRABASE PA	ULTRABASE PA Sand Finish
Thickness, mm	-	1.2; 1.5; 1.8	1.2; 1.5; 1.8
Length x width, m	-	20 x 1.2, 20 x 1.5, 20 x 2.0	20 x 1.5, 20 x 2.0, 20 x 3.0
Tensile strength L / T, MPa	ASTM D 412 -2016	>25±2	>25±2
Elongation at break, %	ASTM D 412 -2016	≥620	≥620
Nail tear resistance, N	ASTM E154	≥400	≥400
Puncture resistance, N	ASTM E 154	>950	>950
Heat resistance at 70°C for 2 hours	-	Pass	Pass
Foldability at low temperature, °C	-	≤-25	≤-25
Lap Adhesion, N/m	ASTM D 1876	>1500	>1500
Resistance to Hydrostatic pressure, m	ASTM D 5385	>70	>70
Peeling strength with post-cast concrete, N/m	ASTM D 903	≥1500	≥1500

DIMPLED (DRAINAGE) MEMBRANES

PLANTER standard

DIMPLED HDPE MEMBRANE FOR PROTECTION OF THE WATERPROOFING LAYER, INSTALLATION OF A PREPARATION LAYER FOR FOUNDATION SLABS

PLANTER standard is a profiled membrane produced by extrusion method on the basis of high-density polyethylene (HDPE), which is used for:

- protection of the waterproofing layer from mechanical damage;
- installation of a preparation layer for foundation slabs;
- protection of the foundation from capillary moisture;
- sanitation of damp walls.

The material is very lightweight and easy to install, herein it is featured by high strength properties. PLANTER is resistant to chemicals, mould and bacteria, roots of plants and ultraviolet radiation. The material is covered with conic studs of 8 mm height and 10 mm in diameter. The membrane is fastened mechanically, the overlaps are sealed with NICOBAND self-adhesive tape.

PLANTER geo

DIMPLED HDPE MEMBRANE WITH GEOTEXTILE FOR THE INSTALLATION OF DRAINAGE FOR FOUNDATIONS, BALLASTED AND GREEN ROOFS

PLANTER geo is a double-layer profiled membrane. The first layer of the material is produced by extrusion method on the basis of high-density polyethylene (HDPE) covered with conic studs 8 mm height and 10 mm in diameter. The second layer is a thermally bounded geotextile glued to the membrane.

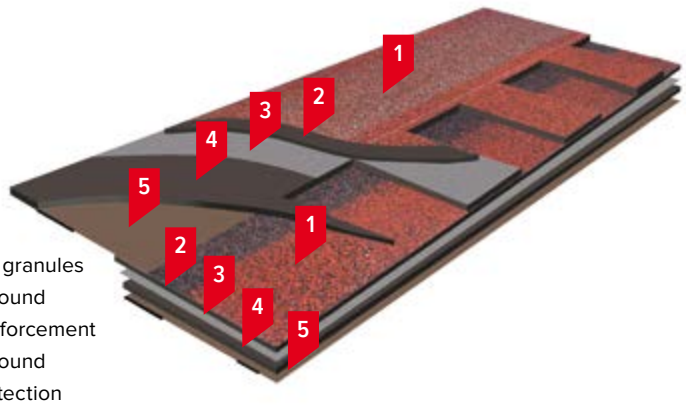
The material is used for:

- installation of vertical and horizontal drainage for foundations;
- installation of a drainage, protective and separating layer for ballasted and green roofs.

The material is very lightweight and easy to install, herein it is featured by high strength properties. PLANTER is resistant to chemicals, mould and bacteria, roots of plants and ultraviolet radiation. The membrane is fastened mechanically, the overlaps are sealed with NICOBAND self-adhesive tape.

PROPERTIES	TEST METHOD	PLANTER standard	PLANTER geo
Compressive strength, kPa	EN 604	≥280	≥350
Weight per unit area, kg/m^2	EN 1849-2	0.55	0.65
Length x width, m	EN 1848-2	20 x 2.0	15 x 2.0
Tensile strength L / T, N/50 mm	EN 12311-2	≥280 / ≥280	≥420 / ≥420
Elongation at break, %	EN 12311-2	≥20	≥30
Stud height, mm	EN 1849-2	8	8
Water flow rate, l/m^2*sec	-	-	5.1

ROOFING SHINGLES



1. Basalt colored granules
2. Bitumen compound
3. Fiberglass reinforcement
4. Bitumen compound
5. Underside protection

Roofing shingles are the construction material for the residential roofing application that is used on roof slopes of 12° or greater. It is the smartest solution for a complex or intricate roof design. Bitumen shingles do not fade; they are resistant to harmful environmental impacts, decay, corrosion, fire damage, and, what is very important, they perform well in extreme temperatures. Roofing shingles by TECHNONICOL Corporation are available in a wide variety of original patterns and elegant colors.

TECHNONICOL roofing shingles provide guaranteed comfort and safety to the house. This durable and long-lasting roofing material comes with the manufacturer's warranty of up to 60 years.

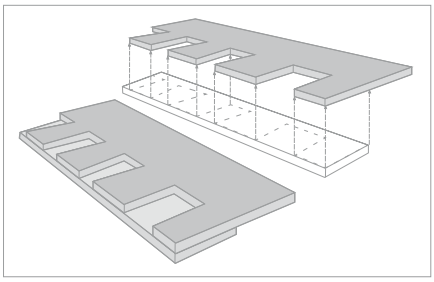
PRODUCTION QUALITY

TECHNONICOL roofing shingles fully comply with EN 544. This European standard for bitumen shingles is known for its strict requirements for the minimum mass of bitumen in products (1300 g/m^2 – for single-layer roofing shingles and 1500 g/m^2 – for multilayer ones).

Having a strong faith in Lean manufacturing philosophy, TECHNONICOL Corporation built in quality control of every process at the production site. Our experts thoroughly test raw materials, do sampling inspection, constantly improve in-process control techniques to offer roofing solutions of superior quality. The unique equipment for automatic production of multilayer (laminated) roofing shingles was designed and fabricated by the world's industry leader - Machine Solution Providers (the USA).

The manufacturer's management system is certified according to ISO 9001:2015, the internationally recognized standard that indicates the company's adherence to quality management practices and minimizes potential risks to customers. Our commitment to quality control, best raw materials and up-to-date technology guarantees years of superior performance to every customer.

MULTILAYER ROOFING SHINGLES

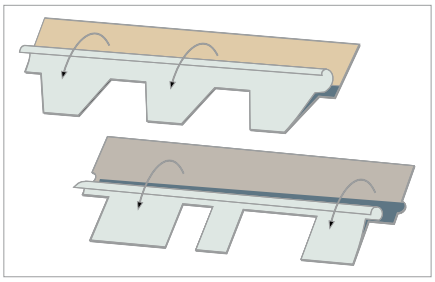


A new roofing standard, which works well with any architectural style imaginable. Each new layer is a new level of reliability. A special cut pattern creates an appealing look of natural handmade tiles like slate or wood shakes. Multilayer roofing shingles is a perfect choice for those, who select superior architectural solutions, safe and durable construction materials.

Multilayer coating and its specific components make an absolutely quiet roofing. The noise of rain, wind or birds will not be heard inside the house.

TECHNONICOL SHINGLAS multilayer roofing shingles stand out for their enhanced endurance, leak and wind resistance. These reliable roofing materials will serve several generations without any need for reroofing.

SINGLE-LAYER ROOFING SHINGLES



Beauty and lasting quality to inspire the most ambitious design concepts. These exceptional materials represent traditional European roofing shingles with the self-adhesive layer on the bottom surface for a better bonding between shingles on the roof. A high-quality bitumen compound is used to produce these single-layer roofing shingles.

Basalt granules of diverse shades add depth and dimension to shingles texture to get an incredible roofing view. Thanks to the weather resistant mineral surface, the color will not fade over time.

Roofing shingles provide effective protection from a merciless heat as well as from freezing winds and thus help to maintain a comfortable temperature inside the house all the year round.

ADVANTAGES

RELIABILITY
A safe and durable construction material guarantees a long lifetime to your roof making sure that a few generations of your family will not have to deal with reroofing!

LIGHTWEIGHT
The average weight of roofing shingles is just 13.5 kg/m^2 compared with 40 kg/m^2 weight of ceramic tiles. It results in a lower load and greater safety.

QUALITY ASSURANCE
TECHNONICOL Corporation provides a warranty for a period of 30 to 60 years, depending on the collection.

ALL-WEATHER
Our roofing shingles are suitable for any climate with temperatures ranging from -70°C to +80°C.

WIND RESISTENCE
High wind resistance due to a special sealant applied to the bottom of the shingles.

ALGAE RESISTANCE
Algae resistance for 10 years is officially guaranteed.

WIDE COLOR PALETTE
Basalt granules of diverse shades add depth and dimension to the texture of the shingles to get an aesthetic roofing. Thanks to weather resistant mineral surface, the color will not fade over time.

KEEPS YOUR HOME QUIET
The multilayer coating and its specific components make an extremely quiet roofing. The noise of rain, wind or hail hitting the roof will not trouble you. Enjoy peace and quiet in your house!

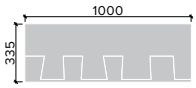




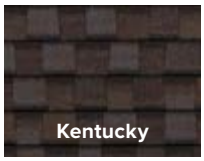

MULTILAYER ROOFING SHINGLES

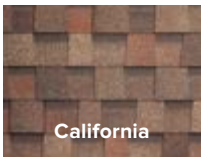
COUNTRY AR collection

COUNTRY AR (algae resistant) collection of double-layer roofing shingles comprises incredible color solutions that imitate diverse nature's shades and nuances. Vibrant color blends and expressive shadow lines create a wonderful dimensional visual image.

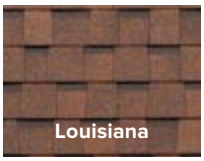


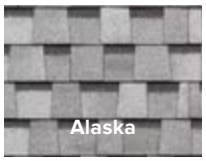
50 YEARS
MANUFACTURER'S WARRANTY

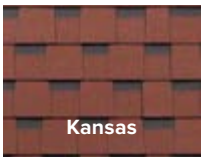


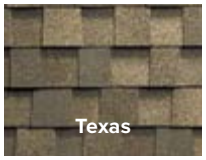


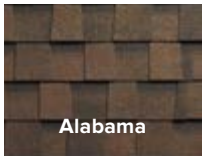
NEW SHADES

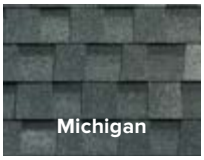








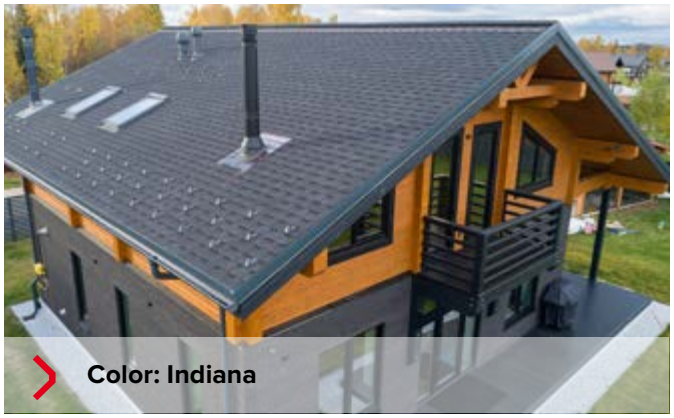




NOTE:
Actual product colors may vary slightly from the colors shown in the catalogue.
If color hue is critical for you, please request full-size samples before making your final choice.


Color: California


Color: Michigan


Color: Indiana


Color: Kentucky

COUNTRY AR collection, color: Texas

COUNTRY AR collection featuring a versatile palette available in a stunning array of earthy tones - think rich browns, soft reds, and muted greys - that complement any landscape.

COUNTRY AR collection, color: Louisiana

COUNTRY AR collection, color: Nevada

Installation manual
nailing method

References
video review

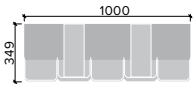
Installation manual
torching method

PROMO
COUNTRY AR Collection

PREMIUM SERIES: MULTILAYER ARCHITECTURAL SHINGLES

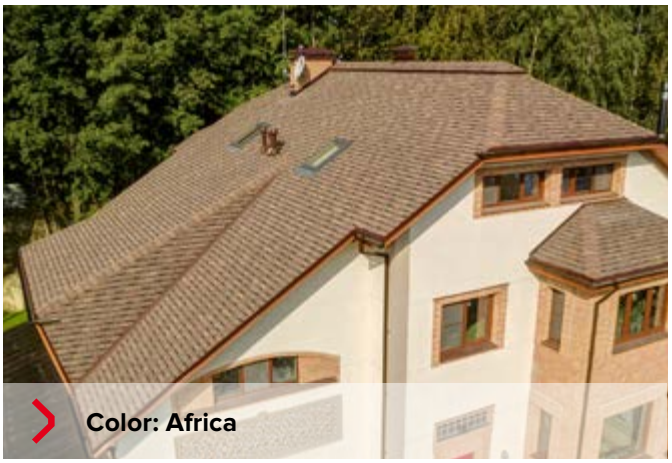
CONTINENT collection *

Triple-layer roofing shingles are an elite material.
They resemble antique stone roofing tiles and create an incredible ultra-dimensional look.



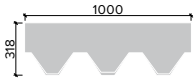
60 YEARS
MANUFACTURER'S WARRANTY


Color: Asia


Color: Africa

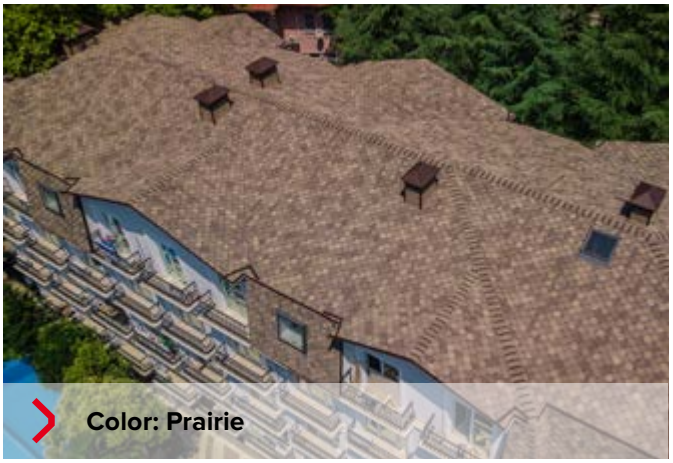
WESTERN collection *

The patent design of this double layer roofing shingles has no analogs in the world.
It is an incredible holographic effect embodied in a classic pattern. WESTERN collection is an inimitable range of colors and excellent performance.



55 YEARS
MANUFACTURER'S WARRANTY


Color: Niagara


Color: Prairie

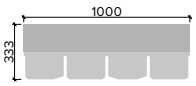
* Order on Demand

SINGLE-LAYER ROOFING SHINGLES

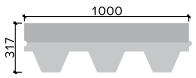
CLASSIC AR series

CLASSIC AR (algae resistant) series covers a wide array of attractive colors and various cutting patterns to suit any taste. High-grade bitumen compound is used to produce these single-layer roofing shingles of assured quality that comes with a manufacturer's warranty of 30 years.

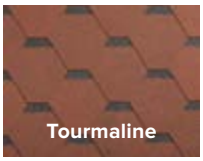
30 YEARS
MANUFACTURER'S WARRANTY

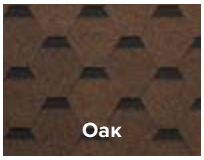


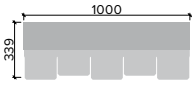
MODERN



QUADRILLE







FREESTYLE *

The Freestyle collection stands out among single-layer roofing shingles due to its unique cutting pattern with rhythmically defined "petals" of different heights.


CLASSIC AR series, Freestyle - Shelf


CLASSIC AR series, Modern - Glacier

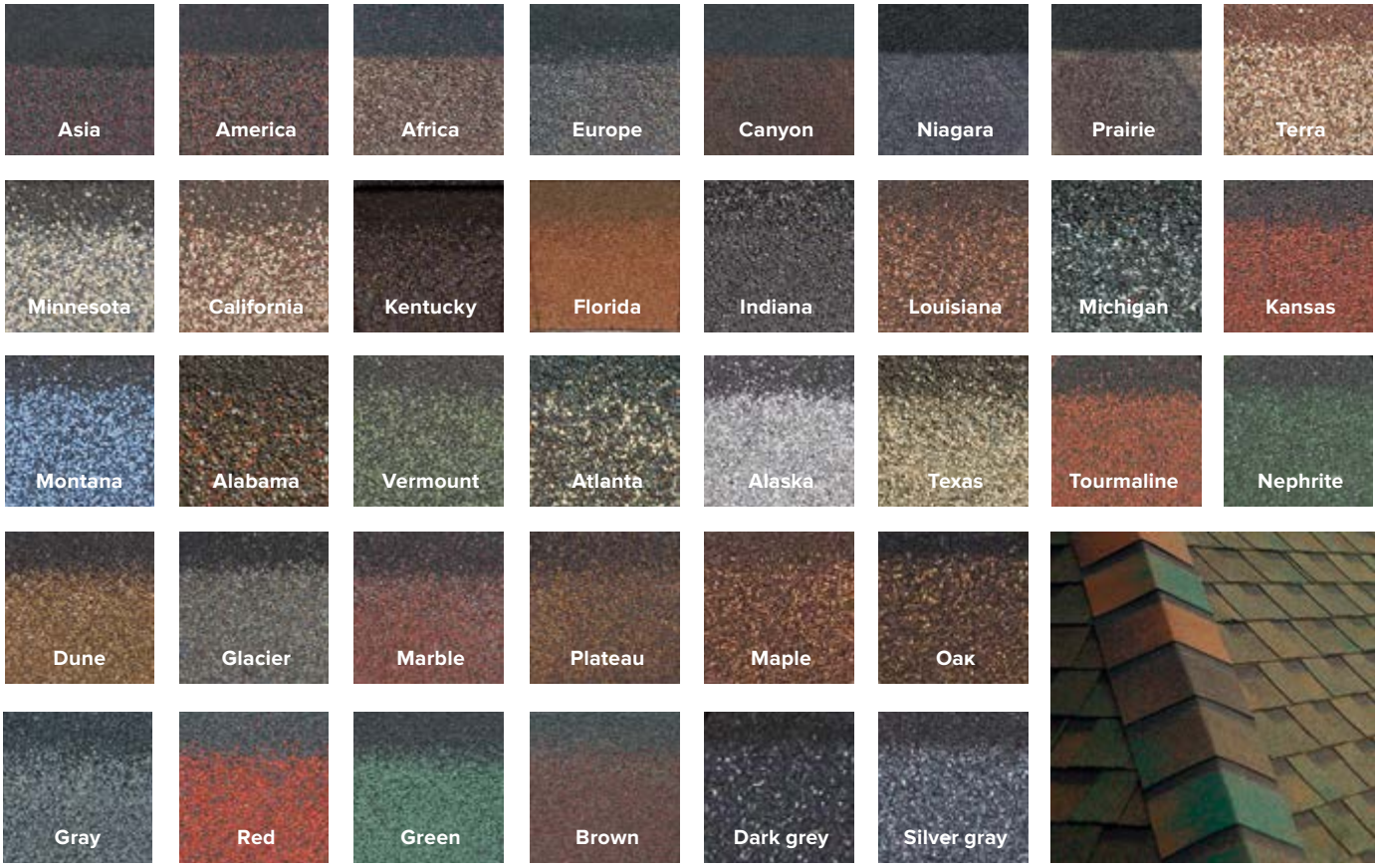

CLASSIC AR series, Quadrille - Tourmaline

* Order on Demand

SINGLE-LAYER ROOFING SHINGLES

TECHNONICOL hip & ridge & starter shingles

Hip & ridge & starter shingles produced with SBS-modified bitumen are extremely flexible.
These pre-cut shingles can be separated into three smaller pieces for further application on hips and ridges to add the perfect aesthetic finish to your roof. Maximum protection against wind, snow and rain is provided. Available in a wide range of colors to match any chosen roofing color solution.
Dimensions: 1 m × 0.25 m.



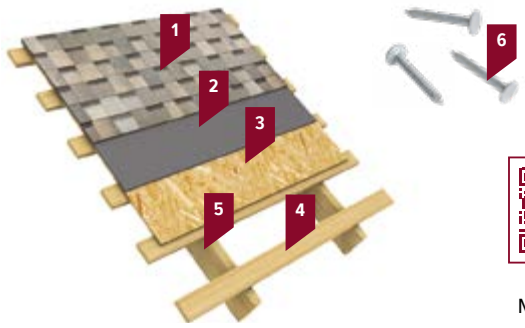
CLASSIC AR series, Modern - Plateau

CLASSIC AR series, Quadrille - Nephrite

Systems

As experts in bitumen waterproofing for flat and pitched roofs, we understand what's essential. Benefit from proven system quality that effectively protects buildings and ensures roof waterproofing.

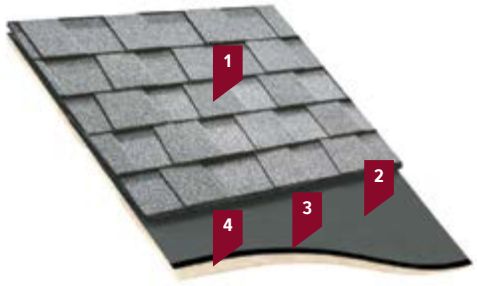
System with nailing method



VIDEO
MANUAL

1. Roofing shingles by TECHNONICOL
2. Underlay membrane ULTRAFLEX SA (self-adhesive)
3. Wood decking
4. Counter battens
5. Rafter
6. Roofing nails

System with torching method



VIDEO
MANUAL

1. Roofing shingles by TECHNONICOL
2. Underlay membrane ULTRAPLAST B
3. BITUMEN PRIME COATING
4. Roof decking (non-flammable)

Specifications

Roofing shingles by TECHNONICOL fully comply with EN 544 – European standard for bitumen shingles known for its strict requirements for the minimum mass of bitumen in products (1300 g/m^2 – for single-layer roofing shingles and 1500 g/m^2 – for multilayer ones). Our commitment to quality control, best raw materials and up-to-date technology guarantees years of superior performance to every customer.

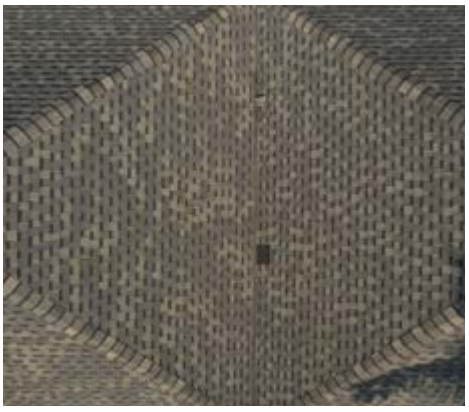
PROPERTIES	MULTILAYER			SINGLE-LAYER		
	CONTINENT	WESTERN	COUNTRY	CLASSIC		HIP & RIDGE
				MODERN	QUADRILLE	
Warranty, years	60	55	50	30	30	—
Base per layer	Fiberglass 110	Fiberglass 110	Fiberglass 90	Fiberglass 100	Fiberglass 100	Fiberglass 110
Type of bitumen	oxidized	oxidized	oxidized	oxidized	oxidized	SBS
Flow resistance at elevated temperature, °C	110	110	110	110	110	100
Thickness per layer, mm	3.2±0.2	3.0±0.2	2.7±0.2	3.0±0.2	3.1±0.2	3.4±0.2
Bundle weight, kg	38.1	26.4	31.5	32.1	26.7	27.5
Weight per sqm, kg/m^2	25.4	17.6	12	10.7	8.9	5.5
Coverage per bundle, m^2	1.5	1.5	2.6	3.0	3.0	5.0 12 lin. m (hip & ridge) or 20 lin. m (starter strip)
Quantity on the pallet, m^2	45.0	54.0	93.6	108.0	108.0	200
Installation method*	a	a	a / c	a / b	a / b	a / c

*Installation methods: a – nailing; b – torching; c – torching with additional nailing for steep roofs (slope ≥45°).

REFERENCES

Assagao, Bardez, Goa, India
PN DEVELOPERS

Ribander, Tiswadi, Goa, India
ALCON CONSTRUCTION



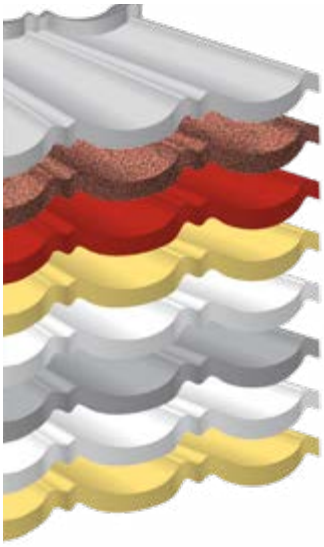
Mandrem Beach, Pernem , Goa, India
HOTEL RIVA BEACH RESORT

STONE COATED METAL ROOF TILES

Stone-coated metal roof tiles by TECHNONICOL

Over the centuries, people have been improving the ways to protect their homes from rain and sun, wind and heat. Roofing tiles have become one of the most popular coverings for pitched roofs. However, throughout the time, new, improved materials have appeared while the essence – the classic appearance – remained unchanged. Stone-coated metal roof tiles by TECHNONICOL is an incredible unity of esteemed traditions and innovative technologies.
The collection of colors of stone-coated metal roof tiles by TECHNONICOL was created with respect to natural shades. Each individual color or their combination provides the opportunity to complement the style that will become the hallmark of your home.

Structure



1. Transparent acrylic varnish – contributes to self-cleaning from dust during rain
2. Colored stone granules – protects from mechanical damage and creates an outstanding appearance
3. Acrylic primer – provides adhesion of stone granules
4. Protective coating – serves as an additional anti-corrosion protection
5. Aluzinc (AZ – 120 gsm) layer – preserves the steel layer from corrosion
6. High-quality steel sheet (0.5 mm) – being the base of the material provides strength and rigidity
7. Aluzinc (AZ – 120 gsm) layer – preserves the steel layer from corrosion
8. Protective coating – serves as an additional anti-corrosion protection

Advantages

PICTURESQUE ROOFING
The true beauty of natural stone and noble colors embodied in a time-honoured form will definitely distinguish your home among all others.

PERFECT FOR ANY ARCHITECTURAL STYLE
The variety of types and colors of stone-coated metal roof tiles by TECHNONICOL allow adorning the roof of any luxurious mansion, the elegant architecture of any villa.

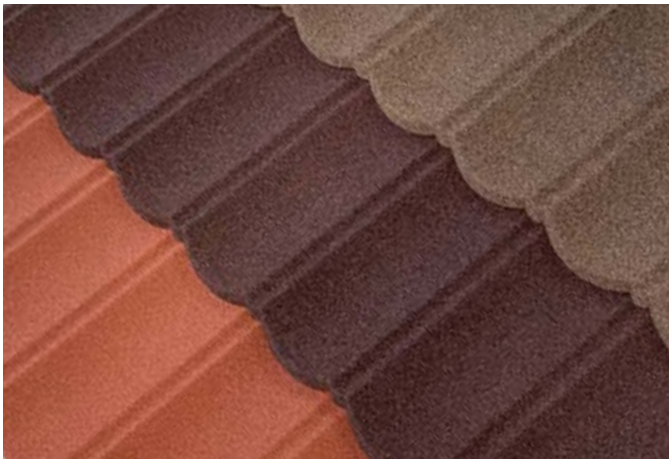
DURABILITY
Metal and stone grant strength and durability. The metal alloy acts as a reliable base for the tiles, while the bright colored stone granules protect their surface for many decades.

KEEPS YOUR HOME QUIET
The special structure of the material and the properties of its components effectively resist the noise of rain and wind, keeping the home quiet and protecting your peace of mind.

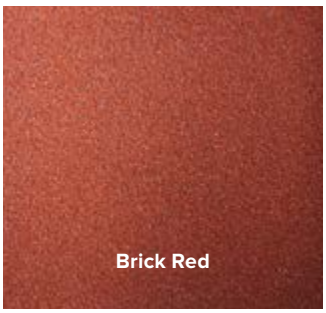
WIND RESISTENCE
Interlocking panel system offers extraordinary resistance to wind uplift of up to 230 km/h. Be sure of your roof in any storm!

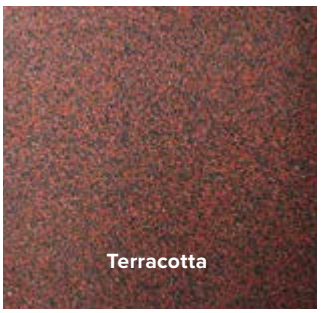
FIRE SAFETY
Stone-coated metal roof tiles by TECHNONICOL neither burn nor spread the fire being the safe roofing material.

Collection TILE

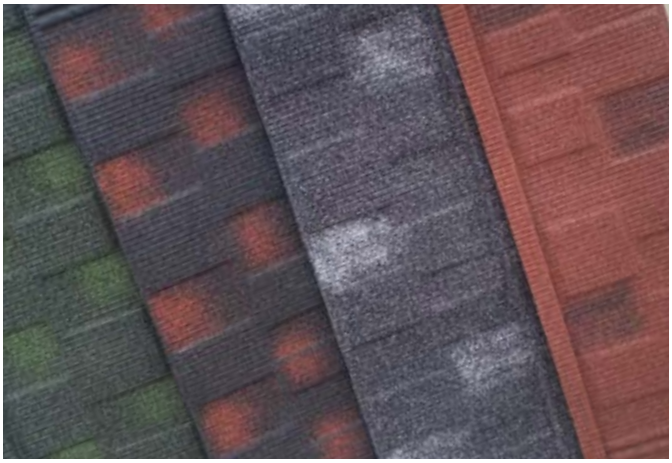


Properties	Value (0.5 mm)	Value (0.4 mm)
Panel size	1340 x 420 mm	1340 x 420 mm
Installed size	1290 x 370 mm	1290 x 370 mm
Panels per sqm	2.1 pieces	2.1 pieces
Weight per panels	3.15±0.05 Kgs	2.75±0.05 Kgs

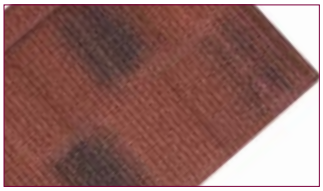


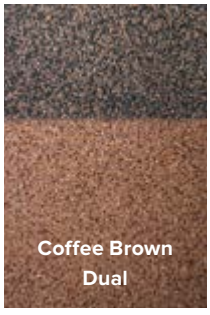


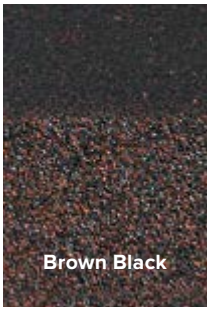
Collection SHINGLE



Properties	Value (0.5 mm)	Value (0.4 mm)
Panel size	1340 x 420 mm	1340 x 420 mm
Installed size	1290 x 370 mm	1290 x 370 mm
Panels per sqm	2.1 pieces	2.1 pieces
Weight per panels	3.15±0.05 Kgs	2.75±0.05 Kgs

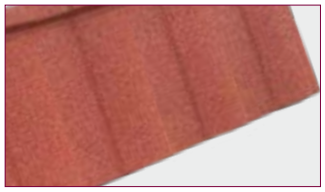


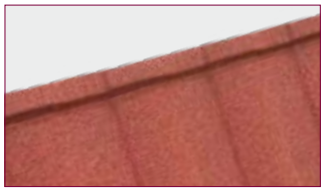


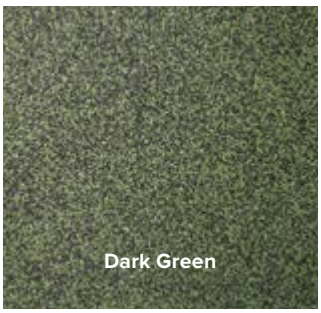


Collection ROMAN

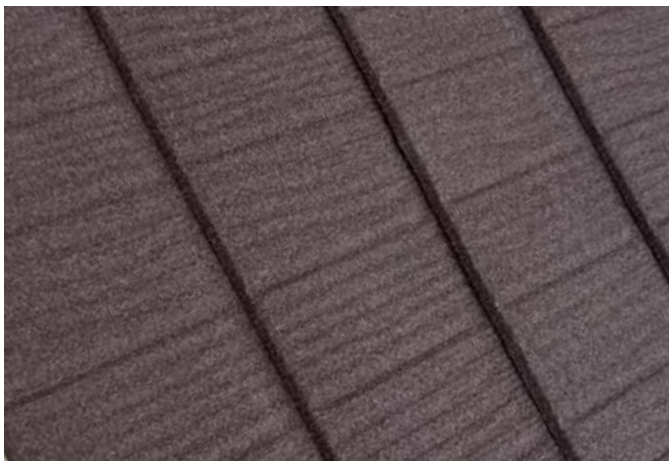
Properties	Value (0.5 mm)	Value (0.4 mm)
Panel size	1340 x 420 mm	1340 x 420 mm
Installed size	1290 x 370 mm	1290 x 370 mm
Panels per sqm	2.1 pieces	2.1 pieces
Weight per panels	3.15±0.05 Kgs	2.75±0.05 Kgs



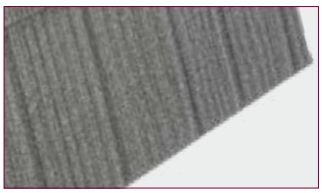


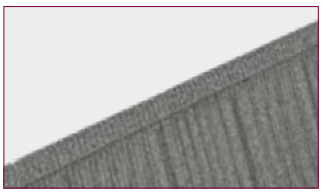


Collection SHAKE



Properties	Value (0.5 mm)	Value (0.4 mm)
Panel size	1340 x 420 mm	1340 x 420 mm
Installed size	1290 x 370 mm	1290 x 370 mm
Panels per sqm	2.1 pieces	2.1 pieces
Weight per panels	3.15±0.05 Kgs	2.75±0.05 Kgs

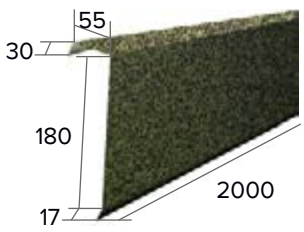




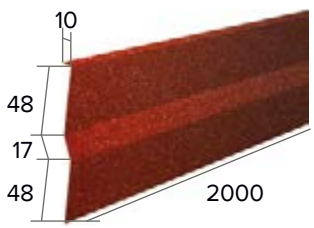
NOTE:
Actual product colors may vary slightly from the colors shown in the catalogue. If color hue is critical for you, please request full-size samples before making your final choice.

ACCESSORIES

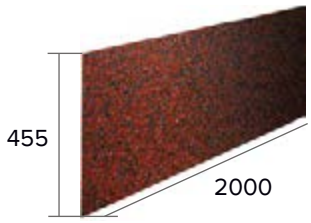
Barge board flashing



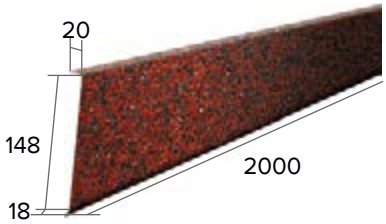
Side flashing



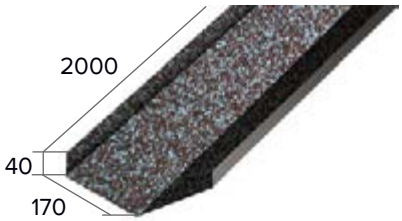
Flat sheet



Fascia flashing

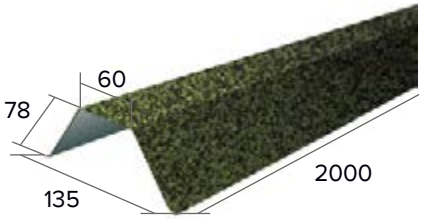


Valley

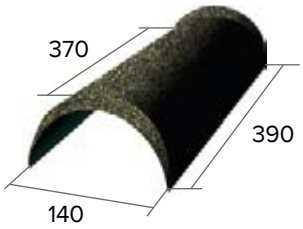


Wall flashing

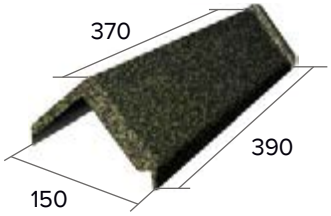
Ridge board flashing



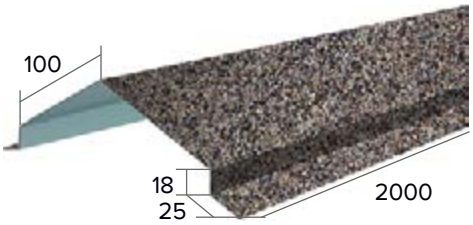
Barrel cap



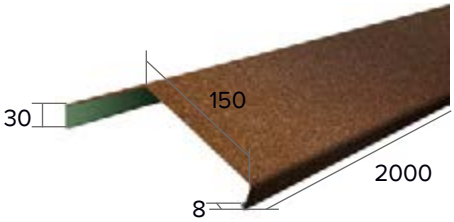
Angle trim



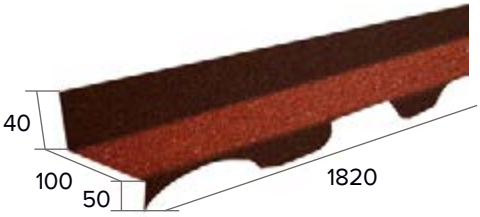
Ridge cap 100



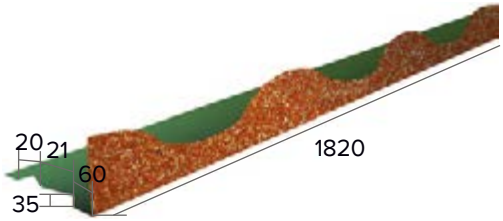
Ridge cap 150



Top course



Bird stop



Touch up kit

CERAMIC ROOF TILES

KRYSHA tropical collection

Premium ceramic roof tiles

TECHNONICOL brings KRYSHA TROPICAL collection, the premium ceramic double glazed roof tiles to meet the roofing requirement of the tropical region. “KRYSHA“ ceramic tiles manufactured with the advanced state of art manufacturing facility and crafted with the finest clay. The double glazed ceramic coated surface ensure the tile to withstand the adverse climatic condition of the tropical region.

Color: Antique Red

Color: Navy Blue Grey

Crafted with precision and innovation, the KRYSHA TROPICAL collection boasts a stunning array of colors, textures, and finishes inspired by the tropical landscapes. From lush greens to vibrant blues and earthy tones, each tile reflects the natural beauty of tropical paradises, adding a touch of sophistication to any architectural design.

Designed to withstand the harshest elements, our ceramic roof tiles are engineered for superior durability and weather resistance. Constructed from high-quality materials and advanced manufacturing techniques, they provide longlasting protection against UV radiation, moisture, and extreme temperatures, ensuring your roof remains strong and beautiful for years to come.

ADVANTAGES:

LEAK PROOF

Our tiles are meticulously crafted to create a seamless barrier against water infiltration, ensuring your home remains dry and secure during the challenging weather conditions.

THERMAL INSULATION

Designed to regulate interior temperatures, our tiles provide a cozy environment in colder seasons and a cool refuge during scorching.

LIGHT WEIGHT

Experience the convenience of working with tiles that are easy to transport and install, without sacrificing durability or performance.

WATER REPELLENT

Discover unparalleled water resistance with our ceramic roof tiles. Crafted using cutting-edge water-repellent technology, ceramic tiles form a robust shield against moisture intrusion.

ANTI-AGING

Ceramic roof tiles by TECHNONICOL provide longlasting protection against moisture, UV radiation, and temperature differences, ensuring your roof remains strong and beautiful for years to come.

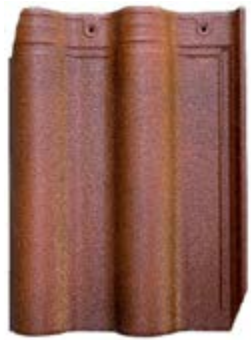
DURABILITY

Engineered with high-quality materials, these tiles are designed to withstand the test of time and the harshest weather conditions.

Experience the beauty and performance of the KRYSHA TROPICAL Collection – where style meets strength, and innovation meets inspiration. Choose TECHNONICOL for your roofing needs and elevate your home to new heights of elegance and durability.

Beyond their exceptional durability, the KRYSHA TROPICAL collection offers unparalleled thermal insulation properties, keeping your home cool in hot climates and warm in cold weather. With superior thermal performance, you can enjoy enhanced comfort and energy efficiency, reducing your carbon footprint while lowering heating and cooling costs.
In addition to their functional benefits, our ceramic roof tiles are designed to enhance the aesthetic appeal of any architectural style. Whether you prefer a traditional or contemporary look, the KRYSHA TROPICAL collection offers versatile design options to complement your unique vision and elevate the curb appeal of your property.

AVAILABLE COLORS:

Vintage Red	Terracotta	Antique Red
		
Navy Blue Grey	**Coffee Brown**	**Graphite**
		

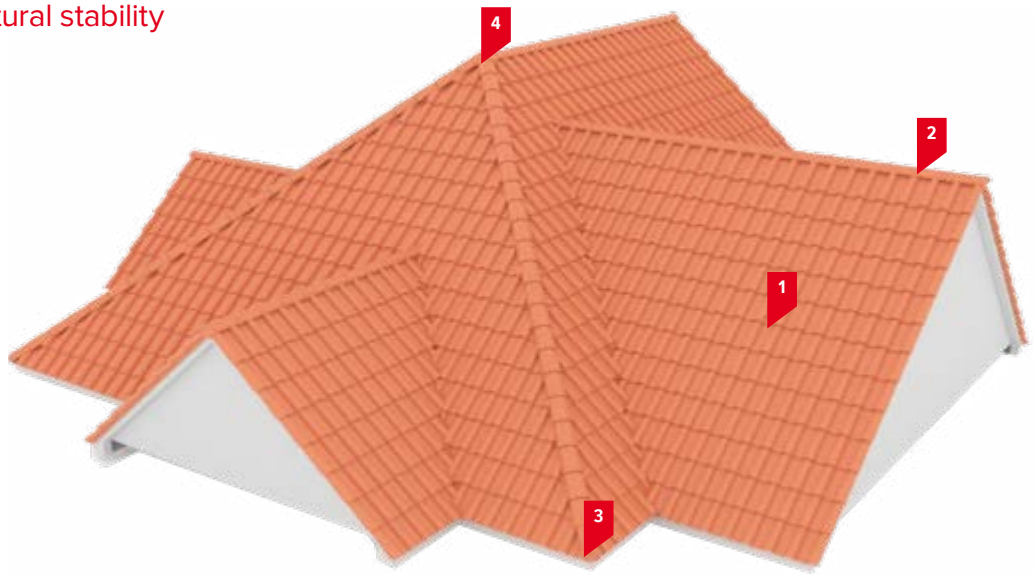
PROPERTIES	PERFORMANCE
Dimension (LXW), mm	400 x 300 (± 0.5mm)
Thickness, mm	10mm (± 1mm)
Weight, kg	2.5 kg (± 0.1 kg) / piece
Effective coverage, sq.ft.	0.93 sq.ft./piece
Tiles/box	9 tiles
Water absorption (%)	3-4 %
Compression strength	250 kg/cm^2
Minimum slope	> 20 degree
Coverage of tiles/m^2	11.4 pcs/m^2
Frost resistance	Pass
Surface coating	Ceramic double glazed
Base material	Finest white clay

In Russian, the word “КРЫША (KRYSHA)” refers to the “ROOF” or the uppermost covering of the building.
“КРЫША” can also be used to describe protection or shelter.

ACCESSORIES

for perfect roof with structural stability

1. Ceramic roof tile
2. Ridge
3. Hip Starter
4. 3-Way



RIDGE TILE

Ridge tile accessories in ceramic tile installation is crucial for waterproofing, protecting the ridge tiles, enhancing weather resistance, providing ventilation, improving aesthetics, offering structural support, and facilitating ease of installation.
They are essential components that contribute to the overall performance and longevity of the roof system.

HIP STARTER / RIDGE END

The hip starter or ridge end accessory in ceramic tile installation is a crucial element that provides waterproofing, stability, protection, aesthetics, ventilation, ease of installation, and compliance with building standards.
It plays a vital role in the overall functionality, durability, and visual appeal of the roofing system, making it an indispensable component for any ceramic tile roof installation.

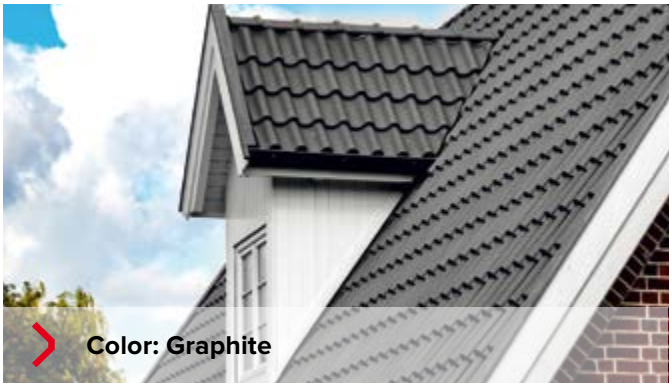
3-WAY

3-Way accessories are integral components of ceramic tile installation that offer benefits such as seamless transitions, edge protection, enhanced aesthetics, safety, durability, ease of installation, and versatility.
They are essential for achieving a professional, polished, and long-lasting tiled surface.

4-WAY

4-way accessories are indispensable components of ceramic tile installation that offer benefits such as uniform appearance, enhanced stability, prevention of tile movement, improved aesthetics, ease of installation, versatility, and long-term durability. They are essential for achieving a professional, secure, and visually appealing tiled surface that stands the test of time.

Color: Coffee Brown



Color: Graphite

LIQUID APPLIED WATERPROOFING

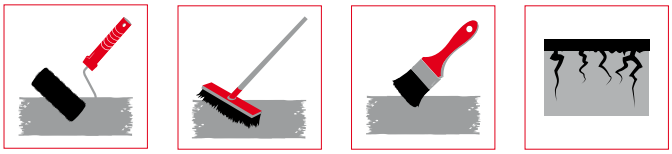
BITUMEN PRIMERS

BITUMEN PRIME COATING

SOLVENT BASED BITUMEN PRIMER

A ready to use BITUMEN PRIME COATING (Primer TECHNONICOL No. 01) is intended for surface preparation before the installation of bitumen roofing and waterproofing materials. The prime coating is necessary for ensuring strong adhesion of the bitumen-based waterproofing materials to porous, rough and dusty surfaces. The primer presents a mix of high-quality bitumen and specially selected organic solvents. It has an enhanced covering capacity, penetrability and short drying time.

The ready to use primer is applied to a surface with a roller and a large or small brush. It is applied to the substrate at once that ensures additional convenience and enhanced performance. The product should be stored in a dry place protected from direct sunlight at temperatures from -20°C to +30°C.
Shelf life – 18 months.



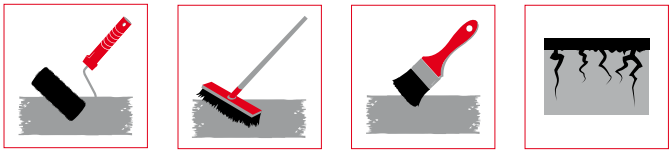
POLYMER-BITUMEN PRIME COATING

SOLVENT BASED POLYMER-BITUMEN PRIMER

A ready to use POLYMER-BITUMEN PRIME COATING is intended for surface preparation of bridge and flyover decks of orthotropic steel plates or reinforced concrete slabs before the installation of polymer-bitumen waterproofing materials. It is also used for surface preparation before the installation of self-adhesive polymer-bitumen membranes.

POLYMER-BITUMEN PRIME COATING is a mixture of high-quality bitumen, polymers, adhesion additives and specially selected organic solvents. The primer has an excellent penetrability and very short drying time. Due to the use of polymers, the primer has an enhanced softening temperature and can be used even on steel surfaces.

The product should be stored in a dry place protected from direct sunlight at temperatures from -20°C to +30°C. Shelf life – 12 months.



PROPERTIES	BITUMEN PRIME COATING	POLYMER-BITUMEN PRIME COATING
Mass fraction of non-volatile substances, %	45-55	25-30
Drying time at 20°C, h	12	≤15
Relative viscosity, s	15-40	10-30
Softening temperature, °C	≥70	≥100
Consumption, l/m^2	0.25-0.35	0.25-0.35
Bucket volume, l	3, 10, 20	20

UNIVERSAL WATER BASED PRIMER

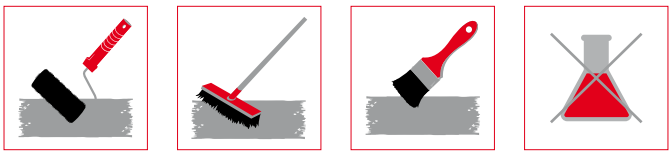
WATER BASED BITUMEN PRIMER

A ready to use UNIVERSAL WATER BASED PRIMER is intended for surface preparation before the installation of bitumen roofing and waterproofing materials. The prime coating is necessary for ensuring a strong adhesion of the bitumen-based waterproofing materials to porous, rough and dusty surfaces.

The primer is produced on the basis of bitumen dispersion in water; it does not contain solvents. The primer has a neutral smell, so it is perfectly suited for indoor works.

The ready to use bitumen primer is applied to a surface with a large or small brush. It is applied to the substrate at once that ensures additional convenience and enhanced performance. Application temperature should be from +5°C to +40°C.

The product should be stored in a dry place protected from direct sunlight at a temperature above +5°C. Shelf life – 6 months.



PROPERTIES	UNIVERSAL WATER BASED PRIMER
Content of bitumen with emulsifier, %	25-40
Drying time at 20°C, h	1
Relative viscosity, s	5-30
Softening temperature, °C	≥75
Consumption, l/m^2	0.25-0.35
Bucket volume, l	20

BITUMEN MASTICS

MASTIC TECHNONICOL No. 21

SOLVENT BASED ROOFING AND WATERPROOFING POLYMER-BITUMEN MASTIC




TECHNONICOL No. 21 ready to use roofing and waterproofing bitumen mastic is a mixture of high-quality bitumen, special polymers, mineral fillers and organic solvents. The coatings on its basis are very flexible, heat and moisture resistant and have an excellent adhesion to the substrate. After drying, it forms a high-strength waterproofing layer that considerably increases the service life of the protected structures. The mastic can be used within a wide range of operating temperatures thanks to the added polymers.

TECHNONICOL No. 21 mastic is used for:

- installation of mastic roofs and repair of old roofs;
- waterproofing of underground structures (foundations, basements, piles, etc.);
- waterproofing and anti-corrosion treatment of metal surfaces, including car bodies.

The mastic is applied to a surface layer by layer with a brush or spatula. A layer can also be applied by pouring and leveling. The thickness of one layer should not exceed 1.5 mm. Every following layer is applied after the previous one becomes dry. Application of at least 2 mastic layers is recommended for reliable waterproofing of underground structures, 3 layers are recommended for the installation of mastic roofs. The drying time under standard conditions is not more than 24 hours. The product should be stored in a dry place protected from direct sunlight at temperatures from -20°C to +30°C. Shelf life – 18 months.

PROPERTIES	MASTIC TECHNONICOL No.21
Adhesion strength to concrete, MPa	≥0.6
Adhesion strength to metal, MPa	≥0.9
Strength of adhesion between bitumen membrane - bitumen membrane, MPa	≥0.3
Strength of adhesion between bitumen membrane - concrete, MPa	≥0.4
Shear strength of adhesive bond, kN/m	≥4.0
Nominal strength, MPa	≥1.0
Elongation at break, %	≥500
Mass fraction of non-volatile substances, %	≥50
Heat endurance, °C	≥110
Cold bending on a bar with a radius of 5.0±0.2 mm at -35°C	no cracks
Water absorption over the course of 24 h, %	≤0.4
Water resistance at a pressure of 0.1 MPa applied for 24 h	Pass
Consumption for the installation of 1 layer, kg/m^2	1.2–1.9
Bucket volume, kg	3, 10, 20

MASTIC TECHNONICOL No. 24

SOLVENT BASED WATERPROOFING BITUMEN MASTIC

TECHNONICOL No. 24 ready to use waterproofing bitumen mastic is a mixture of high-quality bitumen, mineral fillers, special additives and organic solvents.

TECHNONICOL No. 24 mastic is used for the waterproofing of concrete or wood surfaces of underground structures (foundations, basements, piles, etc.).

The mastic is applied to a surface layer by layer with a brush or spatula. A layer can also be applied by pouring and leveling. Every following layer is applied after the previous one becomes dry. Application of at least 2 mastic layers is recommended for reliable waterproofing. Drying time under standard conditions is not more than 24 hours.

The product should be stored in a dry place protected from direct sunlight at temperatures from -20°C to +30°C. Shelf life – 18 months.

PROPERTIES	MASTIC TECHNONICOL No.24
Adhesion strength to concrete, MPa	≥0.1
Adhesion strength to metal, MPa	≥0.1
Shear strength of adhesive bond, kN/m	≥2.0
Mass fraction of non-volatile substances, %	≥65
Heat endurance, °C	≥80
Cold bending on a bar with a radius of 5.0±0.2 mm at -5°C	no cracks
Water absorption over the course of 24 h, %	≤0.4
Water resistance at a pressure of 0.03 MPa applied for 10 min	Pass
Consumption for the installation of 1 layer, kg/m^2	0.7-1.0
Bucket volume, kg	3, 10, 20

MASTIC TECHNONICOL No. 31

WATER BASED ROOFING AND WATERPROOFING POLYMER-BITUMEN MASTIC

TECHNONICOL No. 31 ready to use roofing and waterproofing bitumen mastic is a mixture of an aqueous emulsion of bitumen, special polymers, additives and mineral fillers. It has an enhanced elasticity, heat endurance and water-resistant properties. The mastic has a neutral smell, so it is perfectly suited for indoor works.




TECHNONICOL No. 31 mastic is used for:

- indoor waterproofing (bathrooms, pools, balconies, etc.);
- installation of mastic roofs and repair of old roofs;
- waterproofing of underground structures (basements, piles, etc.).

The mastic is applied to a surface layer by layer with a roller or brush. A layer can also be applied by pouring and leveling. The thickness of one layer should not exceed 1.5 mm. Every following layer is applied after the previous one becomes dry. Application of at least 2 mastic layers is recommended for reliable waterproofing of underground structures, 3 layers are recommended for the installation of mastic roofs.

The product should be stored in a dry place protected from direct sunlight at a temperature above +5°C. Shelf life – 6 months.

PROPERTIES	MASTIC TECHNONICOL No.31
Adhesion strength to concrete, MPa	≥0.45
Nominal strength, MPa	≥0.5
Elongation at break, %	≥700
Content of bitumen binder with emulsifier, %	50-70
Heat endurance, °C	≥95
Cold bending on a bar with a radius of 5.0±0.2 mm at -15°C	no cracks
Water absorption over the course of 24 h, %	≤1.0
Water resistance at a pressure of 0.1 MPa applied for 24 h	Pass
Consumption for the installation of 1 layer, kg/m^2	1.2-1.9
Bucket volume, kg	3, 10, 20

MASTIC TECHNONICOL No. 33

SOLVENT BASED REFLECTIVE POLYMER-BITUMEN MASTIC

TECHNONICOL No. 33 spray-applied roofing and waterproofing bitumen mastic is a mixture of an aqueous emulsion of bitumen, special polymers and latex additives. It has an outstanding elasticity, heat endurance and strength properties.
The mastic has a neutral smell, so it is perfectly suited for indoor works. Spray application of the mastic can significantly reduce the time needed for the installation of a waterproofing layer.




TECHNONICOL No. 33 mastic is used for:
- indoor waterproofing (bathrooms, balconies, etc.);
- installation of mastic roofs and repair of old roofs;
- waterproofing of underground structures (foundations, basements, piles, etc.).

The mastic is spray applied to a surface together with a coagulant solution (supplied with the product) with a dual-channel airless spraying device.

The product should be stored in a dry place protected from direct sunlight at temperatures from +5°C to +30°C.
Shelf life – 6 months.

PROPERTIES	MASTIC TECHNONICOL No.33
Adhesion strength to concrete, MPa	≥0.6
Nominal strength, MPa	≥0.7
Elongation at break, %	≥900
Mass fraction of non-volatile substances, %	53-65
Heat resistance, °C	≥140
Cold bending on a bar with a radius of 5.0±0.2 mm at -25°C	no cracks
Water absorption over the course of 24 h, %	≤0.4
Water resistance at a pressure of 0.1 MPa applied for 24 h	pass
Consumption for the installation of 1 mm layer, kg/m^2	1.5
Bucket volume, kg	200

MASTIC TECHNONICOL No. 57

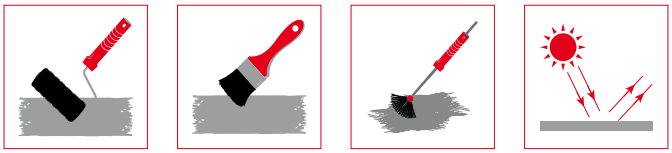
SOLVENT BASED REFLECTIVE POLYMER-BITUMEN MASTIC

TECHNONICOL No. 57 ready to use reflective bitumen mastic is a mixture of high-quality bitumen, special polymers, aluminum pigment, additives and organic solvents. The coating layer formed by the mastic effectively protects the bitumen roofing against UV rays and heat; it also protects the metal roof from corrosion.

TECHNONICOL No. 57 mastic is used for:

- installation of a protective layer on new mastic roofs;
- recovery of the protective layer on old roofs;
- corrosion protection of roof coverings.

The mastic is applied to a surface with a brush, roller or airless spraying device. Application of 2 mastic layers is recommended.



PROPERTIES	MASTIC TECHNONICOL No.57
Adhesion strength to concrete, MPa	≥0.3
Adhesion strength to metal, MPa	≥0.3
Mass fraction of non-volatile substances, %	≥50
Heat resistance, °C	≥100
Cold bending on a bar with a radius of 5.0±0.2 mm at -15°C	no cracks
Consumption for the installation of 1 layer, kg/m^2	0.4-0.6
Bucket volume, kg	3, 10, 20

MASTIC TECHNONICOL FIXER

SOLVENT BASED ADHESIVE POLYMER BITUMEN MASTIC

TECHNONICOL FIXER ready to use adhesive bitumen mastic is a mixture of high-quality bitumen, special polymers, additives, fillers and organic solvents.

The mastic provides excellent adhesion of bitumen-based materials (e.g. roofing shingles, polymer-bitumen membranes) to the application surface, thus reliably sealing the overlaps and connections.

TECHNONICOL FIXER mastic is used for:

- adhesion of bitumen-based materials to different types of surfaces (wood, metal, concrete, brick, ceramic, etc.);
- sealing of joints, penetrations, overlaps, connections made with the use of bitumen-based materials.

The mastic is applied to a surface with a spatula. The thickness of application depends on the type of work performed, but usually does not exceed 1 mm. The application temperature range is from -10°C to +40°C. The drying time under standard conditions is not more than 24 hours.
The product should be stored in a dry place protected from direct sunlight at temperatures from -20°C to +30°C.
Shelf life – 18 months.

PROPERTIES	MASTIC TECHNONICOL FIXER
Adhesion strength to concrete, MPa	≥0.5
Adhesion strength to metal, MPa	≥0.8
Mass fraction of non-volatile substances, %	≥75
Heat resistance, °C	≥110
Cold bending on a bar with a radius of 5.0±0.2 mm at -15°C	no cracks
Consumption for the installation of 1 layer, kg/m^2	1.0
Bucket volume, kg	3.6, 12 kg, cartridge of 310 ml

POLYMER COATINGS

TECHNONICOL EPOXY PRIMER 021

TWO COMPONENT EPOXY PRIMER

TECHNONICOL EPOXY PRIMER 021 is a transparent rigid two component solvent less epoxy primer. It is used as primer for waterproofing, sealing and floor coating applications of absorbent substrates. It is cured by cross linking reaction between the two components.

- Excellent workability: application is simple with a brush or roller.
- Excellent bonding to absorbent substrates enabling its use as an inter-coat between old and new concrete surfaces.
- Can be applied on moist and wet substrates without loss of adhesion (Up to 5% of moisture)
- Low VOC content
- Resistant to standing water.
- Excellent chemical resistance.

TECHNONICOL EPOXY PRIMER 021 is mainly used as a primer for Epoxy self-leveling coatings, polyurethane coatings, polysulphide/ polyurethane/ epoxy Polyurethane sealants, anti skid primer on absorbent surfaces.

- It can be used on moist concrete (up to 5% moisture content).
- It can be used as bonding agent between old and new concrete.
- It can be used as an inter-coat adhesion between the top and intermediate coat.
- It can also be used as an inter-coat adhesion on painted surfaces.
- Exterior RCC surfaces include sloping roofs, masonry walls or facades.

PRODUCT APPLICATION:
Mixing Ratio: BASE - 3 parts by weight and HARDENER – 2 parts by weight.

New concrete surface: The surface should be free from dust and loose particles. Loose particles should be removed by washing or blowing air. Apply TECHNONICOL EPOXY PRIMER 021 Coat at a spread rate of 50 -55 square feet/ kg/ coat depending on the porosity of the concrete for Plain finish and 20-25 square feet for Anti-skid finish. Allow 8-12 hrs. to dry, if possible, wait 24 hours before application.

Existing/old Concrete Surface: Remove all loosely adhered coatings & other contaminants like algae or fungus. Fill existing cracks with a mixture of TECHNONICOL EPOXY PRIMER 021 and sand. Apply TECHNONICOL EPOXY PRIMER 021 Coat at a spread rate of 50-55 square feet/ kg / coat depending on the porosity of the concrete for Plain finish and 20-25 square feet for Anti- skid finish. Allow 8-12 hrs. to dry, if possible, wait 24 hours before application.

PROPERTIES	TECHNONICOL EPOXY PRIMER 021
Method of application	Brush or Roller
Pot life (100 GM MIX), min	at 25°C: 25 to 30, at 35°C: 15 to 20
Specific gravity, g/cm^3	1.05 to 1.12
Overlay time (maximum), hours	24
Curing time	Initial Cure: 24 hours, Final Cure: 7 days
Application temperature, °C	5 to 35

TECHNONICOL ULTRASHIELD

LIQUID-APPLIED, ACRYLIC BASED, MICROFIBER REINFORCED WATERPROOFING COATING

UILTRASHIELD is a flexible, liquid applied, single component, ultraviolet, and weather resistant, acrylic waterproofing membrane for all types of exposed roof slabs (new and old), terraces (sloped and flat), etc. ULTRASHIELD contains cross linking polymers, special glass microfibers, pigments, and an advanced antifungal additive that create a long-lasting tough waterproofing membrane.

TECHNONICOL ULTRASHIELD is used for the waterproofing and protection of:

- High solar reflectance index (SRI) indicates high degree of cooling effect.
- Roof slabs (flat and sloped).
- RCC/ asbestos/ lime terraced roofs, etc. after suitable surface preparation and repairs.
- It is suitable for repairing existing bituminous membrane.
- It can be used as exterior coating for PVC water tanks exposed to direct sunlight on roofs.
- Extended walls, balconies, and sunshades.

PROPERTIES	TEST METHOD	TECHNONICOL ULTRASHIELD
Chemical base	-	Acrylic polymer dispersion
Density, kg/l at 27° C	-	1.35
Layer thickness with glass fibre, mm	-	1.2
Solid content, % (by weight)	ASTM D 2969	66
Tensile strength, MPa	ASTM D412	1.5
Elongation at break, %	ASTM D412	>200
Adhesion strength to cement after 14 days of curing, N/mm^2	EN 1542	≥ 1.5
Crack bridging properties, mm	ASTM C 836	2.5
Water absorption (% by mass)	ASTMD 570	< 10
Water vapor transmission, g/m^2/ 24h	ASTM E96	23
Shore A hardness	ASTM D 2240	45 after 1 month
Solar reflectance index	ASTM E1980	106 (low wind to high wind condition) 49.8 to 41°C (low wind to high wind condition)
Algae & fungal growth	ASTM D5590	No growth
Water permeability	IS 2645	Passes

TECHNONICOL ULTRATHANE

SINGLE-COMPONENT MOISTURE CURING LIQUID POLYURETHANE MEMBRANE

TECHNONICOL ULTRATHANE is a single-component moisture curing liquid-applied mastic made from pure polyurethane, which once cured forms a continuous elastic membrane, without any joints, overlapping or any integrated mesh required. It can be applied with a brush, squeegee, roller, or airless spray. Roller application is necessary for reinforced systems.
The product is available in grey, white, other requested colors.

Waterproofing systems with or without reinforcement for:
- Roofs, terraces, and balconies.
- Tanks, channels, pipelines.
- Renewing old membranes.
- Parking and sport areas.
- Wet areas.
- Bridge decks, overpasses, and podiums.

TECHNONICOL ULTRATHANE ECO

SINGLE-COMPONENT MOISTURE CURING LIQUID POLYURETHANE MEMBRANE

TECHNONICOL ULTRATHANE ECO is a single-component moisture curing liquid made up from pure polyurethane, which once catalyzed forms a continuous elastic membrane, without any joints, overlapping or any integrated mesh required. It can be applied with a brush, squeegee, roller, or airless spray. Roller application is necessary for reinforced systems.

The product is available in grey, white, other requested colors.

Waterproofing systems with or without reinforcement for:
- Roofs, terraces, and balconies.
- Tanks, channels, pipelines.
- Renewing old membranes.
- Parking and sport areas.
- Wet areas.
- Bridge decks, overpasses, and podiums

PROPERTIES	TEST METHOD	TECHNONICOL ULTRATHANE	TECHNONICOL ULTRATHANE ECO
Specific weight, g/ml	UNI EN ISO 2811-1	1.40± 0,07	1,40± 0.07
Viscosity at 20°C, mPa.s	UNI EN ISO 2555	4,000 ± 1,000	4,000 ± 1,000
Solid content, %	EN ISO 3251	90±1	90±1
Crack bridging, mm	EN 1062-7	>2	>2
Capillary absorption and permeability to water, $kg/m^2 \cdot h^{0.5}$	EN ISO 1062-3	< 0.1	< 0.1
Adhesion to concrete, MPa	EN 1542	> 2.0	> 2.0
Tensile strength, MPa	UNI EN 12311-2	4-6	3-3.5
Elongation at break, %	UNI EN 12311-2	>450	>500
Shore A Hardness	EN ISO 868	70	70
Adhesion to green concrete	EN 13578	No swelling, no cracks, no spalling	No swelling, no cracks, no spalling

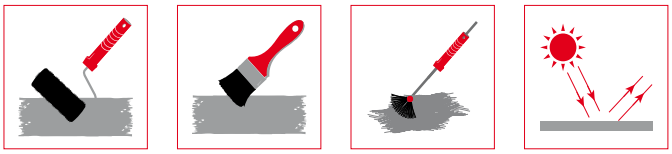
TECHNONICOL ULTRATHANE PUD

LIQUID-APPLIED POLYURETHANE WATERPROOFING MEMBRANE

ULTRATHANE PUD is a liquid-applied, highly permanent elastic, cold applied and cold curing, water based, single-component, modified polyurethane membrane used for long-lasting waterproofing. When ULTRATHANE PUD is applied, it forms a hydrophobic, 100% waterproofing, permanent elastic, seamless membrane without joints or leak possibilities that protects old and new structures efficiently and on a long-term basis.

TECHNONICOL ULTRATHANE PUD is used for:

- Waterproofing Roofs
- Waterproofing Balconies and Terraces
- Waterproofing Decks
- Waterproofing Wet Areas (under tiles)
- Waterproofing and protection of Concrete structures.
- Waterproofing and protection of Drywall and Cement boards protection of Polyurethane Foam Insulation.



PROPERTIES	TEST METHOD	TECHNONICOL ULTRATHANE PUD
Specific weight, g/ml	UNI EN ISO 2811-1	1.34± 0,02
Appearance	-	Viscious liquid
Solid content	EN ISO 3251	>66
Tensile strength, N/mm²	UNI EN 12311-2	>1.5
Elongation at break, %	UNI EN 12311-2	>.400
Adhesion to concrete, N/mm²	EN 1542	>1.5
Resistance to water pressure	-	No Leak (1m water column, 24h)
Chemical resistance	-	Good resistance against alkali
Shore A Hardness	EN ISO 868	>70
Capillary absorption and permeability to water, kg/m² · $h^{0.5}$	EN ISO 1062-3	< 0.1
Crack bridging, mm	EN 1062-7	Up to 2.00
Pedestrian traffic (allowed)	-	Medium traffic
Tack free time	-	6-12 Hours / 20°C / 50% RH
Light pedestrian traffic time	-	18 Hours / 20°C / 50% RH
Final curing time	-	7 days / 20°C / 50% RH
Flash point	-	Non-flammable

TECHNONICOL ULTRATHANE SUPER

HYBRID POLYUREA MEMBRANE FOR WATERPROOFING AND COATING

TECHNONICOL ULTRATHANE SUPER is a two-component spray applied hybrid polyurea/polyurethane that forms a continuous, solid, 100% waterproof membrane without joints or overlaps and completely adheres to the substrate. It is suitable for waterproofing, protection and sealing in general. Due to its liquid application, it is ideal for repair or recoating on top of other PU / polyurea membranes range, once these are already catalyzed.

TECHNONICOL ULTRATHANE SUPER is used for the waterproofing and protection of:
- Walkable roofs.
- Terraces, balconies, and overhangs.
- Metal roofs.
- Asbestos roofs.
- Other PU / polyurea membranes.

Recommended thickness is 2.00 mm. Environmental temperature for application: +5°C ~ 35°C.
Surface temperature for application: +3°C ~ 30°C.
Maximum environmental relative humidity: 80%. Pot life at 23°C: 20 ~ 25 minutes.

TECHNONICOL ULTRATHANE SUPER CA

COLD APPLIED HYBRID POLYUREA MEMBRANE FOR WATERPROOFING AND COATING

TECHNONICOL ULTRATHANE SUPER CA is a liquid applied two-component hybrid polyurea/polyurethane that forms a continuous, solid, 100% waterproof membrane without joints or overlaps and completely adheres to the substrate. It is suitable for waterproofing, protection and sealing in general. Its properties make it an excellent choice to be applied on a multitude of substrates of new buildings and in refurbishments. It is applied manually and also with airless spray machines.

TECHNONICOL ULTRATHANE SUPER CA is used for waterproofing and protection of:
- Walkable roofs.
- Terraces, balconies, and overhangs.
- Metal roofs & Asbestos roofs.
- Other PU / polyurea membranes.

Recommended thickness is 1.5mm.
Environmental temperature for application: +5°C ~ 35°C.
Surface temperature for application: 5°C ~ 35°C.Do not proceed with application if atmospheric relative humidity is >80% or if the surface temperature is <3°C above the dew point.

PROPERTIES	TEST METHOD	TECHNONICOL ULTRATHANE SUPER	TECHNONICOL ULTRATHANE SUPER CA
Density at 23°C, g/cm^3	ISO 1675	1.10±0.02	1.40±0.07
Solids content, %	ISO 1768	100	>90
Fire reaction, Euro class	-	F	F
Tear strength at 23°C, N/mm	ASTM D 624	45±10	>25
Tensile strength at 23°C, MPa	ASTM D 412	15±2	10±2
Service temperature range	-	-30°C to 90°C	-30°C to 90°C
Elongation at break at 23°C, %	ASTM D 412	450±100	>550
Adherence to concrete, MPa	ASTM D4541	≥2	≥2
Static crack bridging ability, mm	ASTM D 836	≥2	≥2
Curing time at 23°C	-	12 h	6 days
Packaging, drums(A+B), kg	-	210-250	20

CEMENTITIOUS WATERPROOFING

TECHNONICOL TECHNOCRETE

A SURFACE TREATMENT SYSTEM FOR PROTECTING CONCRETE AND MASONRY

TECHNONICOL TECHNOCRETE is an acrylic-based polymer modified cementitious flexible composite coating system. TECHNONICOL TECHNOCRETE in conjunction with cement provides properties to combat the shortcomings of plain cement, particularly its poor adhesion properties, low impact strength, low flexural strength and thin section fragility. TECHNONICOL TECHNOCRETE polymer adds to the potential use as well as enhances the properties of cement slurry, mortar or concrete making it an excellent choice for the use in new construction as well as in renovation work.

TECHNONICOL TECHNOCRETE is used for surface treatment, protection, waterproofing and repairing concrete and masonry. Waterproofing of basements, toilets, terraces, roofs, swimming pools, water towers etc. General concrete repairs. Protection of concrete against corrosion, salt attack etc.

- Combines a tough, flexible, hard-wearing surface with waterproofing.
- Allows trapped vapor to escape thus preventing peeling and blistering.
- Can be applied in uniform thickness to horizontal and vertical surfaces.
- Develops excellent bonds to most building materials.
- Reduces or prevents salt penetration into concrete.
- Is not affected by ultraviolet light or by chemicals ranging from mild acids to strong alkalies.
- Is highly durable in continuous wet conditions.
- Is non-flammable and does not give off toxic gases when exposed to fire.
- Will not rot or corrode.
- Most properties improve with age.
- Is not harmful to the health of workmen.

Store in dry cool place in the temperature range from 5°C to 30°C in sealed condition. Do not allow it to freeze. Keep away from direct sunlight.

PROPERTIES	TEST METHOD	TECHNONICOL TECHNOCRETE
Appearance	visual	milky white coloured free flowing liquid
Viscosity, sec	IS 101	12±1
Solid content, % (by weight)	IS 101	30±3
Parameter of pH, value	IS 9103	>7
14 days bond strength, MPa (min or concrete failure)	ASTM C 882-87	2.0
28 days compressive strength, MPa	IS 516	>30
Recoating time at 27°C and 65% pH, h	IS 101	4-6
Full cure, days	IS 101	14
Ash content, % (by weight)	IS 101	<1.0
Volatile organic matter (VOC), % (by weight)	IS 101	<1.0

TECHNONICOL ULTRACEM 2C

TWO-COMPONENT ELASTIC CEMENT WATERPROOFING MEMBRANE

TECHNONICOL ULTRACEM 2C is used for:

- Waterproofing terraces, tanks, swimming pools, balconies before laying ceramic tiles.
- Waterproof coating of retaining walls and lining for concrete structures.
- Flexible coating of prefabricated structures, micro-cracked concrete substrates, screeds, plasters.
- Protection of concrete from the action of smoke, carbon dioxide, chlorides, sulphates.
- Waterproofing tanks for water containment.

ADVANTAGES:

- Excellent water resistance,
- Applicable on various types of substrates.
- High flexibility
- Applicable from + 5 °C to + 35 °C (substrate temperature).

The substrate should be solid, free of dust, any contaminations, efflorescence, and offcuts itself, paints, waxes, oils and rust. All irregularities that can cause consistent thickness changes or difficulties in application must be eliminated. If the substrates to be processed are too absorbent, moisten them with water before application of the product. Clean well and remove all incoherent parts, restoring with polymer modified mortar.

The product in its original sealed packaging, kept in a dry and protected place, sheltered from high and low temperatures, is kept for 12 months.

PROPERTIES	TEST METHOD	TECHNONICOL ULTRACEM 2C
Appearance	Visual	Grey/off white
Mixed density, kg/l	ASTM D1475	1.8±0.02
Pot life, minutes	-	45
Tensile strength, MPa	ASTM D412	>2
Elongation at break, %	ASTM D412	>50
Adhesion strength to concrete, MPa	ASTM D4541	>1.5
Crack bridging, mm	ASTM D836	>1.5
Hydrostatic pressure@5 bar (50m)	BS EN 12390 Part 8	No leakage
Toxicity	IS 6582	Non toxic
Application of a second layer after, h	-	4-6
Drying time, h	-	6-8
Full cure, days	-	7

TECHNONICOL CA 110

CRYSTALLINE WATERPROOFING ADMIXTURE

TECHNONONICOL CA 110 a reactive crystalline type waterproofing material which is formulated by proprietary blends of chemicals (mainly organic and inorganic salts), quartz, sand and cement.

TECHNONICOL CA 110 is an environmentally friendly and low VOC material. It is an integral waterproofing system that is being added to batches of concrete during mixing process. The active chemicals which react with moisture in fresh concrete and with by-product of cement hydration in the concrete or cement-based materials will cause a catalytic reaction that creates a non-soluble crystalline formation which crystallizes in the pores and capillary tracks.

In the long run, under a supersaturation environment inside concrete, TECHNONICOL CA 110 initiates crystallization process. When this process takes place, millions of needle-like crystals are formed and fill the capillary tracks, pores and microscopic voids within the concrete. Paths for harmful moisture and aggressive chemicals are blocked permanently.

TECHNONICOL CA 110 is added to batches of concrete during the mixing process for new construction projects. The high-growth organic component of the product reacts with water and unhydrated particles in concrete to form millions of needle-like crystals. These crystals grow and migrate through the concrete to fill in hair-thin pores and microscopic voids up to 0.5mm that would otherwise serve as passages for harmful moisture. TECHNONICOL CA 110 technology enhances the natural hydration process in concrete, increasing compressive strength over time and dramatically reducing cracks caused by shrinkage.

TECHNONICOL CA 110 is used to waterproof areas as indicated below:
- Basement floors and retaining walls.
- Concrete flat roofs.
- Water retaining structures.
- Lift pits.
- Swimming pools.
- Reservoirs.
- Secondary contamination structures.
- Tunnels and subway systems.
- Precast, cast- in- place and shotcrete application.

LOW VOC - TECHNONICOL CA 110 powder product contains low volatile organic compounds and are safe for use both outdoor and in confined indoor spaces.
- Environmentally friendly.
- Easy to use - only mix with concrete.
- It provides significant cost saving because it eliminates labour cost in the long run. Integral protection for the entire concrete.
- Permanent protection even if the surface is damaged.
- It can seal the capillaries and minor shrinkage cracks up to 0.5mm through crystal formation.
- It resists extreme hydrostatic pressure from either positive or negative surface of the concrete slab.
- Timesaving.
- It improves durability of the concrete.
- Non-toxic.
- Admixture for Hydrostatic conditions (PRAH)
- It exceeds the requirements of ASTM C494-S (Specific performance admixture)

PROPERTIES	TECHNONICOL CA 110
Form	Cement powder (Grey)
Chloride contents BS 507S	Nil
Potable condition BS 6920 Part 1:2000	Complied
Coefficient of water permeability (m/s) ADM/CE/017:2013	1.13×10^{-13}
Can seal hairline cracks, mm	Up to 0.5
Shelf life	1 year when unopened and undamaged
Packaging, kg/pail	25

TECHNONICOL CA 112

SURAFCE APPLIED CRYSTALLINE WATERPROOFING COATING

TECHNONONICOL CA 112 is a surface applied crystalline waterproofing treatment for concrete structures that is used to protect against the ingress of water. It is a dry powder which is formulated by proprietary blends of chemicals (mainly organic and inorganic salts), quartz, sand and cement and which when mixed with water becomes a coating that is applied to the inner or outer side of a concrete structure.

TECHNONICOL CA 112 is an environmentally friendly and low VOC material. The active chemicals which react with moisture in fresh concrete and with by-product of cement hydration in the concrete or cement-based materials will cause a catalytic reaction that creates a non-soluble crystalline formation.

When this process takes place, millions of needle-like crystals are formed and fill the capillary tracks, pores and microscopic voids within the concrete. Paths for harmful moisture and aggressive chemicals are blocked permanently. These crystals grow and migrate through the concrete to fill in hair-thin pores and microscopic voids up to 0.5mm that would otherwise serve as passages for harmful moisture. TECHNONICOL CA 112 technology enhances the natural hydration process in concrete, increasing compressive strength over time and dramatically reducing cracks caused by shrinkage.

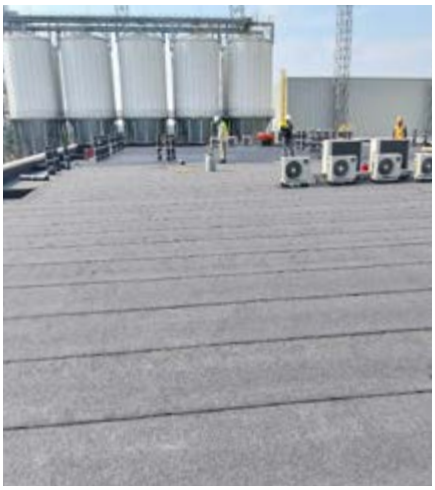
TECHNONICOL CA 112 is used to waterproof areas as indicated below:
- Basement floors and retaining walls.
- Concrete flat roofs
- Water retaining structures.
- Lift pits
- Swimming pools
- Reservoirs
- Secondary contamination structures
- Tunnels and subway systems
- Precast, cast- in- place and shotcrete application.

LOW VOC – TECHNONICOL CA 112 powder product contains low volatile organic compounds and are safe for use both outdoor and in confined indoor spaces.
- Environmentally friendly.
- It reaches well below the surface and and is not affected by surface wear and abrasion.
- Permanent protection even if the surface is damaged.
- It can seal the capillaries and minor shrinkage cracks up to 0.5 mm through crystal formation.
- It resists extreme hydrostatic pressure from either positive or negative surface of the concrete slab.
- Treatment may be applied to old and New concrete.
- It improves durability of the concrete.
- Non-toxic.
- It allows concrete to breathe.
- It exceeds the requirements of ASTM C494-S (Specific performance admixture)

PROPERTIES	TECHNONICOL CA 112
Appearance	Grey (Powder)
Form	Portland cement, Silicate
Chloride contents BS 507S	Nil
Potable condition BS 6920 Part 1:2000	Complied
Density, g/cm^3 (bulk)	2.0
Can seal hairline cracks, mm	Up to 0.5
Shelf life	12months when unopened and undamaged
Packaging, kg/pail	25
Application temperature, °C	8 ~40

REFERENCES

Noida, India
DLF MOIN-MALL OF INDIA



Ca Mau, Vietnam
AQUATIC BRAN FACTORY

Bangkok, Thailand
SINGAPORE INTERNATIONAL SCHOOL

POLYURETHANE FOAM

TECHNONICOL LOGICFOAM SPF

SPRAYED POLYURETHANE FOAM THERMAL INSULATION

TECHNONICOL LOGICFOAM SPF is a spray applied closed cell CFC & HCFC free, two-component polyurethane foam insulation that forms a continuous, rigid, 100% jointless coating that completely adheres to any substrate. LOGICFOAM SPF is suitable for a wide range of insulation applications like roof, wall etc. LOGICFOAM SPF has high insulating capacity and is easy to apply to cover all surfaces application. It is liquid spray applied thereby sealing all cracks, crevices, etc. thus making the entire roof moisture resistant.

- The spray application is carried out by means of high pressure two component mobile machines equipped with a preheating device and heated hoses.
- The desired thickness is achieved through multiple passes/ layers and each layer will give an increase of thickness in the range of approx 10-15 mm.
- TECHNONICOL LOGICFOAM SPF adheres firmly to the substrate thereby sealing all cracks and rendering the surface moisture resistant. The system has a closed cell structure thereby having low water vapour transmission properties and inhibiting ingress of moisture.
- The firm bonding to the substrate can also add significantly to the reduction in vibration of thin membrane roofs and increase the structural strength of the building itself.

PROPERTIES	TEST METHOD	TECHNONICOL LOGICFOAM SPF
Density, (kg/m^3)	ASTM D 1622	45-50
Thermal conductivity value at 25° C (W/m$_K$)	ASTM C 518	0.023
Compressive strength, KPa	ASTM D 1621	>300
Dimensional stability, %	ASTM D 2126	±1
Closed cell content, %	ASTM D 2856	>96
Fire properties	DIN 4102	B2
Water absorption, (immersion) 96 Hrs, %.	ASTM D 2842	<2

EXTRUDED POLYSTYRENE

Extruded polystyrene (XPS) is one of the most efficient thermal insulation materials, which is widely used for thermal insulation of foundations, roofs, floors, pipelines, roads and railways. TECHNONICOL company specialists have developed a unique technology for producing extruded polystyrene slabs with nanoscale carbon particles. That allowed to significantly increase the thermal efficiency of the material and its strength characteristics while decreasing the coefficient of water absorption to the minimum.

ABOUT THE MATERIAL

Extruded polystyrene slabs are produced by mixing polystyrene beads at an elevated temperature and pressure with the addition of a blowing agent and subsequently extruding from the extruder. TECHNONICOL XPS has outstanding thermal insulation parameters and high compressive strength, does not absorb water, does not shrink or swell and is chemically resistant.

TECHNONICOL extruded polystyrene has an excellent energy-saving performance due to improved physical and mechanical properties. It offers a number of valuable advantages: low thermal conductivity, high strength, biological resistance, ecological compatibility and the service life of more than 40 years.

We strive to make a perfect product – the most reliable, convenient to operate and profitable in all aspects.

PRODUCTION QUALITY

Extruded polystyrene TECHNONICOL CARBON is produced on modern high-tech equipment and only the top quality raw materials obtained from reliable suppliers are used for the production.

Each production line of the company is equipped with a computer control system. Advanced laboratories are operating in every factory, carrying out a continuous multistage quality control of manufactured products.

All products of TECHNONICOL meet sanitary requirements; this applies to the manufacturing, storage, transportation and sales. XPS TECHNONICOL CARBON ECO has passed voluntary certification “Leaf of Life”, which confirms the safety in housing construction.

Extruded polystyrene products by TECHNONICOL Corporation present a mix of competitive price, uncompromising quality and numerous operational advantages to meet any needs of thermal insulation.

RANGE OF MATERIALS

The use of thermal insulation materials is an obligatory stage of many construction and repair processes.

A wide range of TECHNONICOL XPS products is divided by area of application and allows the use of products in both civil and private housebuilding.

The product range includes insulation for plaster and ventilated facades, pitched and flat roofs, floors, walls, etc. The material is fastened to vertical surfaces by means of special mechanical fasteners or an adhesive mastic.

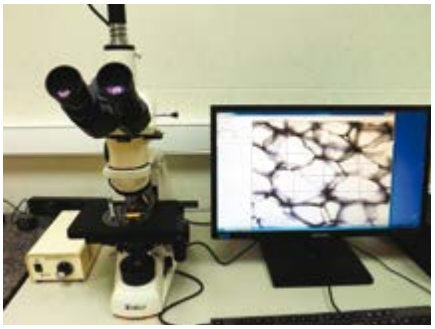
High strength properties of extruded polystyrene allow using the product for the construction of ballasted roofs. XPS with proper fastening can be used as a protective layer for waterproofing membranes. It is also used in the construction of railways and highways.

- Standard slabs of extruded polystyrene are used for thermal insulation in most application areas.

- Slabs with grooves are used for construction of wall drainage and additional thermal insulation of the foundation.

- Slabs with a rough surface are used to increase the adhesion of the facade plaster.

- Slope shaped slabs are used to create a slope on flat roofs in order to drain water from the roof to funnels.



ADVANTAGES

EFFECTIVE THERMAL INSULATION
TECHNONICOL extruded polystyrene has uniformly distributed closed-cell structure. It provides high thermal insulation, physical and mechanical properties.

HIGH STRENGTH
The strength of TECHNONICOL CARBON extruded polystyrene is in range of 25-50 t/ m^2 that fully complies with the stringent requirements for thermal insulation materials.

DURABILITY
TECHNONICOL CARBON extruded polystyrene has a a service life of at least 40 years.

GOOD FOR ANY CLIMATE
TECHNONICOL CARBON XPS can be used in a wide temperature range from -70°C to +75°C, it is suitable for application in all climatic areas of the world.

MINIMAL WATER ABSORPTION
The material has the minimal water absorption characteristics, its insulating properties remain stable throughout the whole life cycle.

OPTIMAL DENSITY
The company specialists were able to find the optimal density for XPS products (the main factor affecting the cost of production). That allowed reducing the price, while improving the key performance parameters of extruded polystyrene, constantly increasing production capacity and continuously improving technology and processes.

CONSISTENT DIMENSIONS
The accuracy of geometric dimensions of TECHNONICOL extruded polystyrene slabs can improve the speed of installation and the quality of work.

EASY INSTALLATION
Extruded polystyrene slabs are easily cut, quickly and securely installed using adhesives or mechanical fasteners.

RESISTANT TO RODENTS
Extruded polystyrene TECHNONICOL CARBON is not a breeding ground for rodents.

BIOSTABILITY
TECHNONICOL CARBON extruded polystyrene is biological stable to molds - the main destructor of insulating materials.

CHEMICAL RESISTANCE
All TECHNONICOL materials are subject to strict sanitary and epidemiological control to obtain the corresponding conclusions. TECHNONICOL CARBON XPS is chemically resistant and is not a subject to putrefaction.

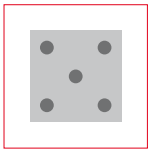
HCFC - CFC FREE
OZONE FRIENDLY

TECHNONICOL CARBON ECO

TECHNONICOL CARBON ECO extruded polystyrene is a high-performance material widely used for buildings and structures when installing the thermal insulation of basements, roofs, floors and facades.

TECHNONICOL CARBON ECO is a thermal insulation material with uniformly distributed closed cells, which does not swell, shrink or absorb water. It is chemically resistant and is not susceptible to putrefaction. The high strength of the material allows receiving an an even and simultaneously rigid substrate that substantially increases the durability of the whole thermal insulation system. TECHNONICOL CARBON ECO contains nanoscale carbon particles, which allow to significantly increase the thermal efficiency of the material.

It can be supplied with flat or L-shaped edges.

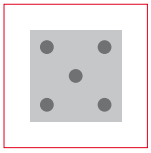


TECHNONICOL CARBON PROF 300

TECHNONICOL CARBON PROF 300 extruded polystyrene is a high-performance material widely used for buildings and structures when installing the thermal insulation of basements, roofs, floors and facades. It is also used in the construction of railways and highways.

TECHNONICOL CARBON PROF 300 is a thermal insulation material with uniformly distributed closed cells, which does not swell, shrink or absorb water. It is chemically resistant and is not susceptible to putrefaction. The high strength of the material allows receiving an even and simultaneously rigid sustrate that substantially increases the durability of the whole thermal insulation system. It contains nanoscale carbon particles, which allow to significantly increase the thermal efficiency of the material.

It can be supplied with flat or L-shaped edges. A variation with a slope shape is available for the creation of a slope of 2.1 or 4.2% in order to drain water from the roof to funnels.



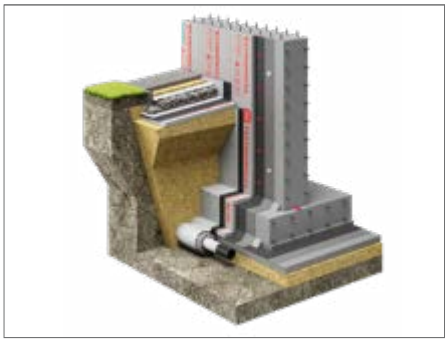
PROPERTIES	Test method	CARBON ECO	CARBON PROF 300
Thermal conductivity λD, W/m*K	ASTM C177 (ASTM C518)	0.028-0.030	0.028
Compressive stress at 10% deformation, kPa	ASTM D1621 (EN 826)	220 - 270	300 - 350
Long term water absorption by immersion WL(T), %	ASTM C272 (EN 12087)	≤ 0.7	≤ 0.7
Density, kg/m^3	ASTM D1622 (EN 1602)	25-28	32-36
Oxygen Index, Minimum % v/v	ASTM D 2863	24	24
Length, mm	EN 822	1180-1200 (±15)	1180-1200 (±15)
Width, mm	EN 822	580-600 (±8)	580-600 (±8)
Thickness, mm	EN 823	20-40 (-2; +3)	50-120 (-2; +3) 130-200 (-2; +8)

NOTES:

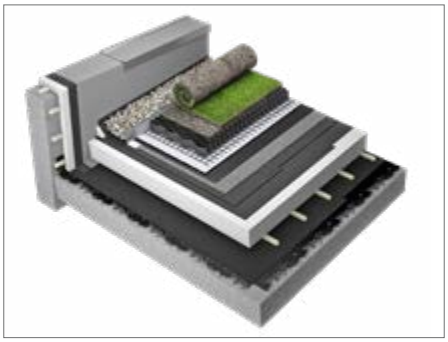
1. TECHNONICOL XPS Boards are CFC/HCFC free.
2. Available with B1, B2 & Class F fire ratings as per DIN 4102 Part 1.
3. TECHNONICOL CARBON PROF is also available with higher/lower density and compressive strength for specific requirements.

EXAMPLES OF APPLICATION

FOUNDATION



GREEN ROOF

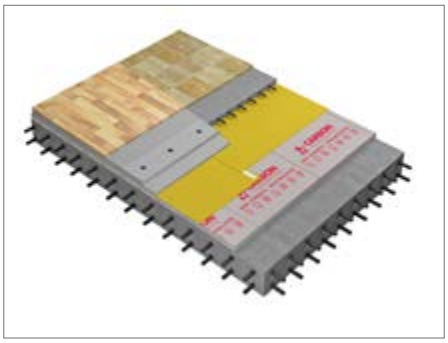


PITCHED ROOF

Maintaining proper thermal regulation is essential to assuring an ideal indoor environment as well as helping to maintain the structural integrity of the building and indoor materials. Extruded polystyrene rigid insulation offers a multitude of benefits and possibilities that can be incorporated into a range of construction projects.

CAVITY WALL

FLOOR



REFRIGERATED TRUCK

TECHNONICOL CARBON is environmentally safe, given the lack of off-gassing and associated contaminants produced during manufacturing, and less insulation is needed to create greater thermal insulation, allowing contractors to use less material and reduce costs. Given that this product does not rot or decompose and can withstand temperatures from -70 to 75 degrees Celsius, users are guaranteed an exceptionally long service life.

REFERENCES

Trang Bang, Vietnam
TOP SPORTS TEXTILE FACTORY

Karjat, India
RADISSON BLU RESORT & SPA KARJAT

Vienna, Austria
SOCIAL INSURANCE INSTITUTION (SVA)

09 / 2025

TECHNONICOL India Private Limited:
Head office in Mumbai:
101 & 102, Joy Villa, Plot No. 58,
Jawahar Nagar Road No. 4,
Goregaon (W), Mumbai 400 104

Ph: +91 22 3520 6466

For Sales support :
info@technonicol.in
For Technical support :
tech.support@technonicol.in

WWW.TECHNONICOL.IN