



KNOWLEDGE. EXPERIENCE. CRAFTSMANSHIP.

ROOFING SHINGLES BY TECHNONICOL

THE SMARTEST SOLUTION FOR YOUR PITCHED ROOF

TECHNONICOL is an international manufacturer of construction materials and systems

69
■ factories

5
countries of
manufacture

118
■ countries of
delivery

We constantly improve
our craftsmanship by developing products,
technologies and enterprises

Knowledge.

10

R&D centers

21

Training centers

Experience.

31

years on the market

<100000

products range

Craftsmanship.

80000

employees

20

product lines

SYSTEM SOLUTIONS PROVIDER

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



SOCIAL AND ENVIRONMENTAL RESPONSIBILITY

TECHNONICOL creates, produces and promotes such materials and systems that can minimize energy losses in the manufacturing industry and utility sector.



TECHNONICOL materials enable to cut down energy losses **THREE-FOLD**

We implement construction systems that can create an energy-efficient envelope in the building – a comprehensive structure protection from its foundation to its roof.

All developed and manufactured products meet sanitary and environmental standards and are safe for humans and environment.



1 more than **million euro per year** are invested in environmental protection

We invest in waste-free production, advanced equipment and environmental protection technologies.

HIGHEST STANDARDS OF PRODUCTION

THE PRODUCTS EXCEED THE MARKET REQUIREMENTS TO THE HIGHEST STANDARD:

- Corporation has obtained a number of product certificates issued by many prestigious institutes around the world
- All export plants of TECHNOMICOL have passed UNI EN ISO 9001 and UNI EN ISO 14001 certification
- Standards of quality in manufacturing are a part of our company culture: implemented standards of Lean production and principles of “Dao Toyota”





ROOFING SHINGLES BY TECHNONICOL

ROOFING SHINGLES

Roofing shingles are the construction material for residential roofing applications that is used on roof slopes of 12° or greater. It is the smartest solution for 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.



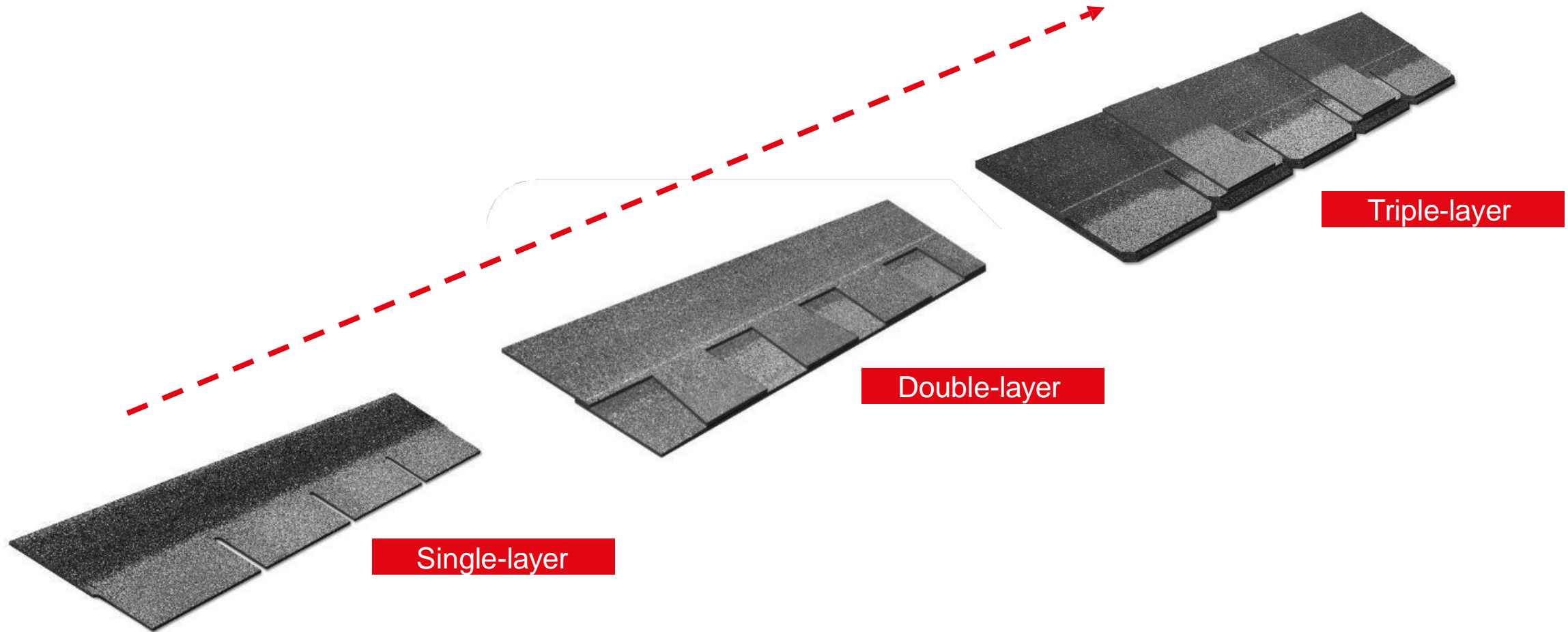
PRODUCTION

TECHNONICOL Corporation manufactures roofing shingles since 2002. Export plants of TECHNONICOL have passed UNI EN ISO 9001 certification and strictly comply with the quality requirements determined by this international standard. Our plants producing roofing shingles:

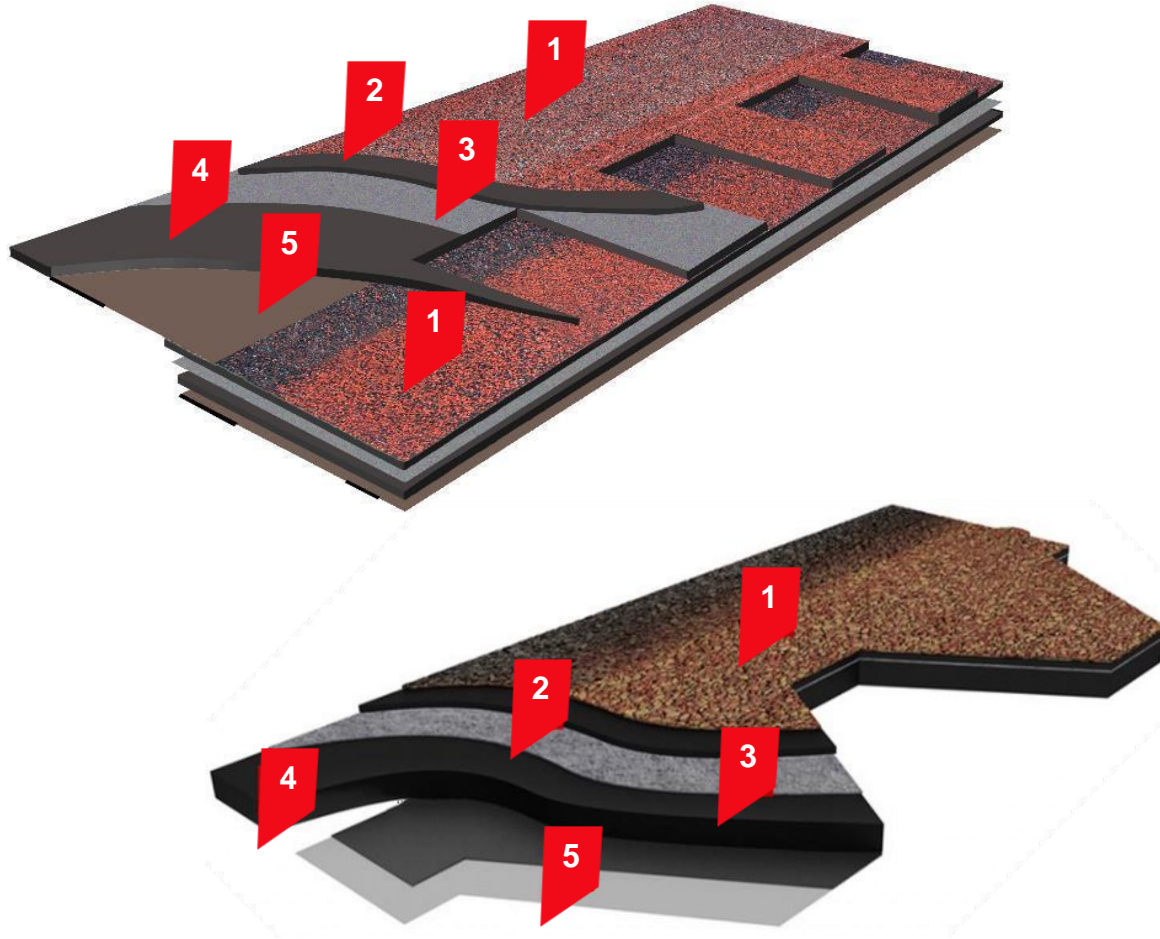
- MIDA plant, Lithuania, 2002
- Shinglas plant, Ryazan, 2005
- Shinglas plant 2, Ryazan, 2013



TYPES OF ROOFING SHINGLES



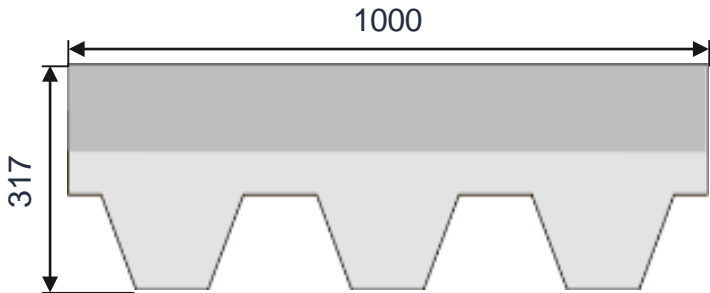
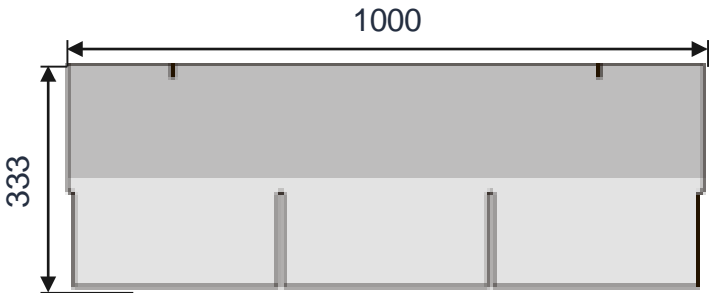
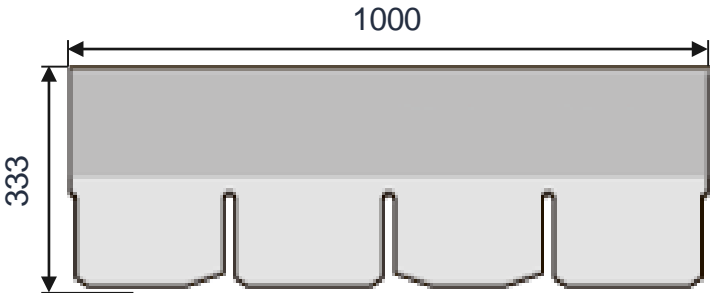
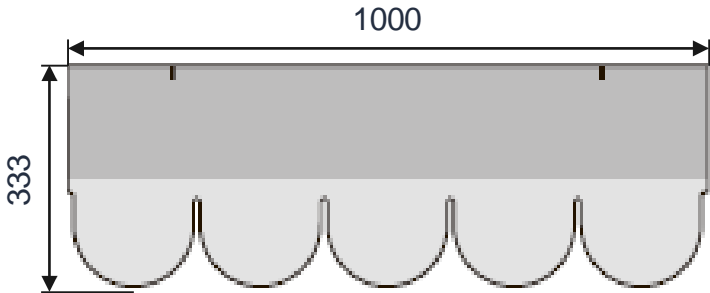
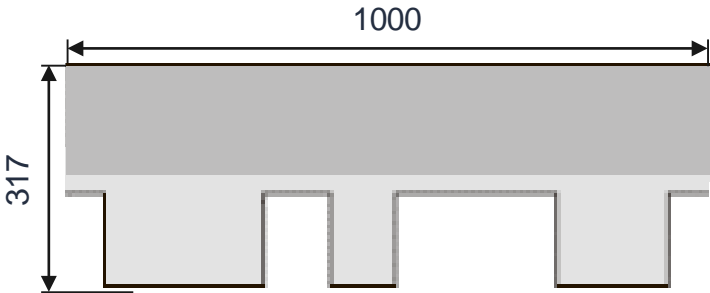
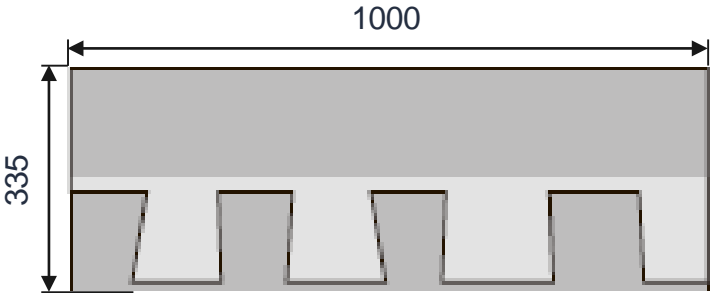
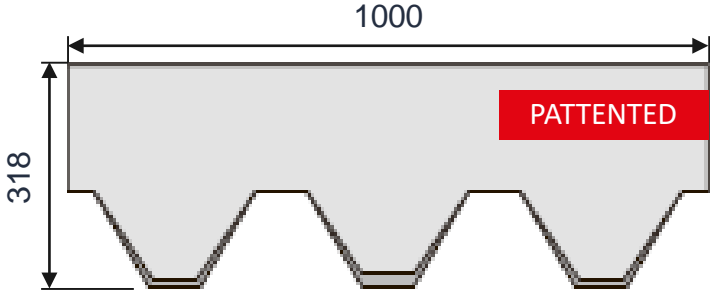
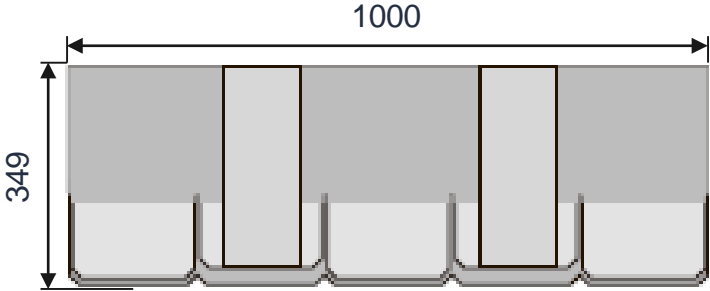
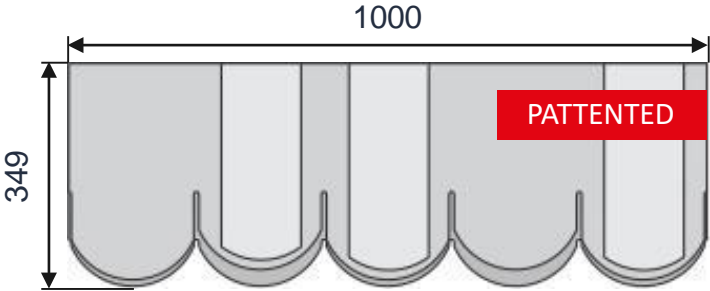
ROOFING SHINGLES STRUCTURE



Roofing shingles structure

1. Top layer: basalt colored granules
2. Bitumen compound
3. Reinforcement: fiberglass mat
4. Bitumen compound
5. Underside protection

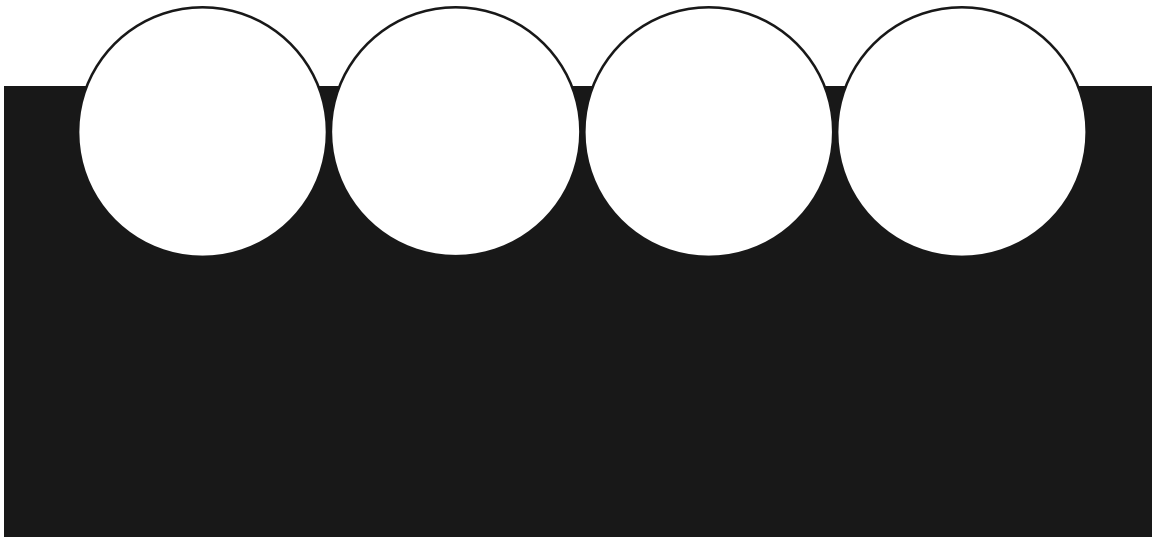
CUTTING PATTERNS



ROOFING SHINGLES COMPONENTS

COLORED BASALT GRANULES:

- Protection against the harmful influence of sunlight
- Prevention of mechanical impact
- Hydrophobized covering
- Flame spread resistance
- Aesthetic appearance and a wide range of hues



ROOFING SHINGLES COMPONENTS

FIBERGLASS REINFORCEMENT:

- Durability
- Tensile strength
- Exact geometrical dimensions of shingles
- Well soaked with bitumen



ROOFING SHINGLES COMPONENTS

BITUMEN COMPOUND:



ROOFING SHINGLES RANGE



Properties	Multilayer roofing shingles				Single-layer roofing shingles					
	CONTINENT	WESTERN	JAZZ	COUNTRY	CLASSIC					HIP & RIDGE
					RUMBA	TANGO	FLAMENCO	QUADRILLE	MODERN	
Warranty, years	60	55	60	50	30	30	30	30	30	-
Base per layer, g/m ²	110	110	90	90	110	110	110	110	110	100
Thickness per layer, mm	3.2±0.2	3.0±0.2	3.0±0.2	2.7±0.2	3.0±0.2	3.0±0.2	3.0±0.2	3.0±0.2	3.0±0.2	3.4±0.2
Bundle weight, kg	38.1	26.4	27.0	31.2	24.3	30.9	32.7	24.3	31.5	27.5
Weight per sqm, kg/m ²	25.4	17.6	13.5	12.0	8.1	10.3	10.9	8.1	10.5	5.5
Coverage per bundle, m ²	1.5	1.5	2.0	2.6	3.0	3.0	3.0	3.0	3.0	5.0
Quantity on the pallet, m ²	45.0	54.0	84.0	93.6	135.0	108.0	108.0	135.0	108.0	200

ADVANTAGES OF ROOFING SHINGLES BY **TECHNONICOL**



Reliability

Safe and durable construction material guarantee a long lifetime to your roof. Be sure a few generations of your family will not have to deal with reroofing!



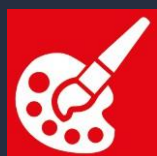
Quality assurance

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



Wind resistance

High wind resistance due to special sealant on the bottom of shingles.



Wide color palette

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



Lightweight

Roofing shingles weight is just 12 kg/m² (COUNTRY collection) compared with 40 kg/m² weight of ceramic tiles. It results in the lower load and greater safety.



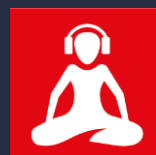
All-weather

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



Algae resistance

Algae resistance officially guaranteed for some collections.



Keeps your home quiet

Multilayer coating and its specific components make extremely quiet roofing. The noise of rain, wind or hail hitting the roof will not torture you. Enjoy peace and quiet in your house!



SINGLE-LAYER ROOFING SHINGLES

CLASSIC SERIES

CLASSIC series covers a wide array of attractive colors and various cutting patterns to suit any taste. A high-grade bitumen compound is used to produce these single-layer roofing shingles of assured quality.



MANUFACTURER'S WARRANTY

RUMBA



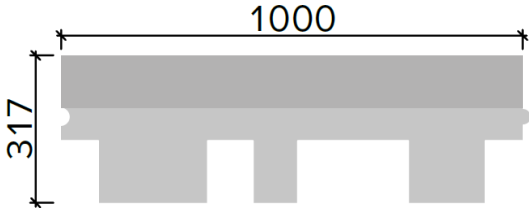
Hazelnut



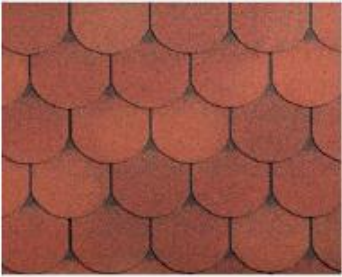
Nutmeg



Peanut



TANGO



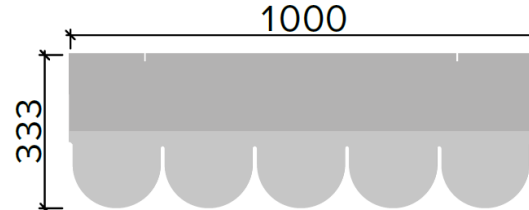
Maple



Autumn



Fir



CLASSIC SERIES

FLAMENCO



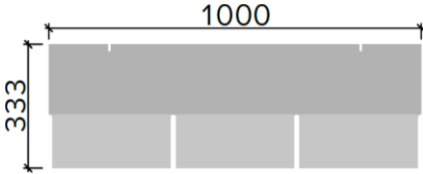
Granada

Brown

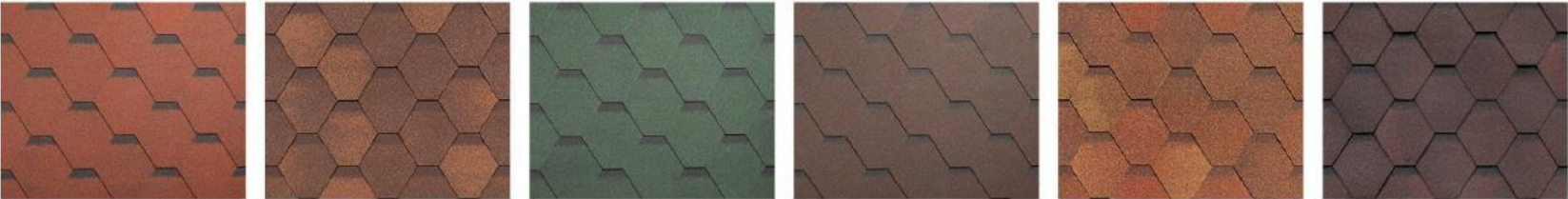
Valencia

Aragon

Toledo



QUADRILLE



Tourmaline

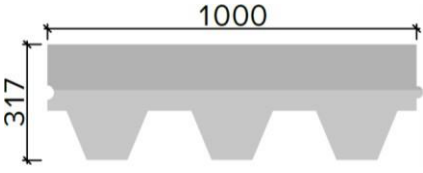
Onyx

Nephrite

Agate

Jasper

Garnet



MODERN



Marble

Plateau

Dune

Glacier

Barkhan

Shelf



CLASSIC SERIES





MULTILAYER ROOFING SHINGLES

ADVANTAGES OF MULTILAYER ROOFING SHINGLES

1 Stunning 3D pattern

The roof has an outstanding look!

The roof with single-layer roofing shingles



The roof with multilayer roofing shingles

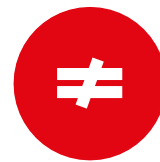
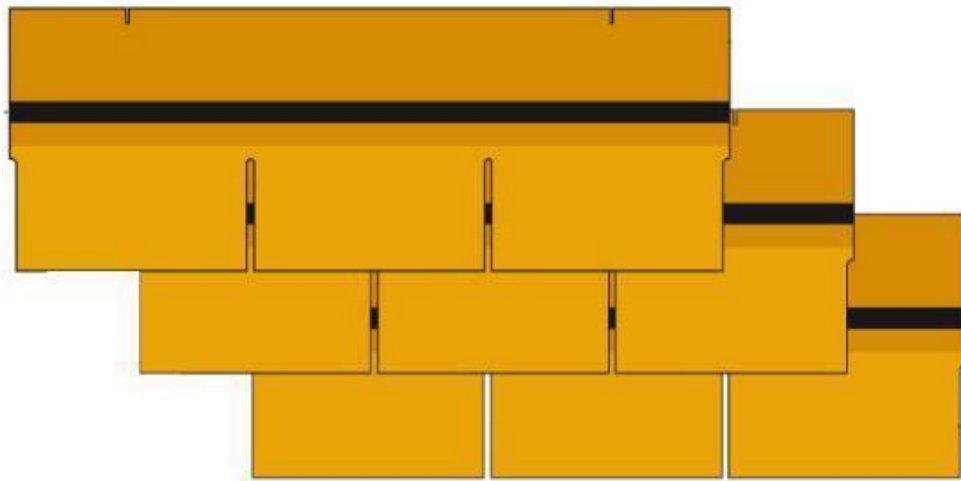


ADVANTAGES OF MULTILAYER ROOFING SHINGLES

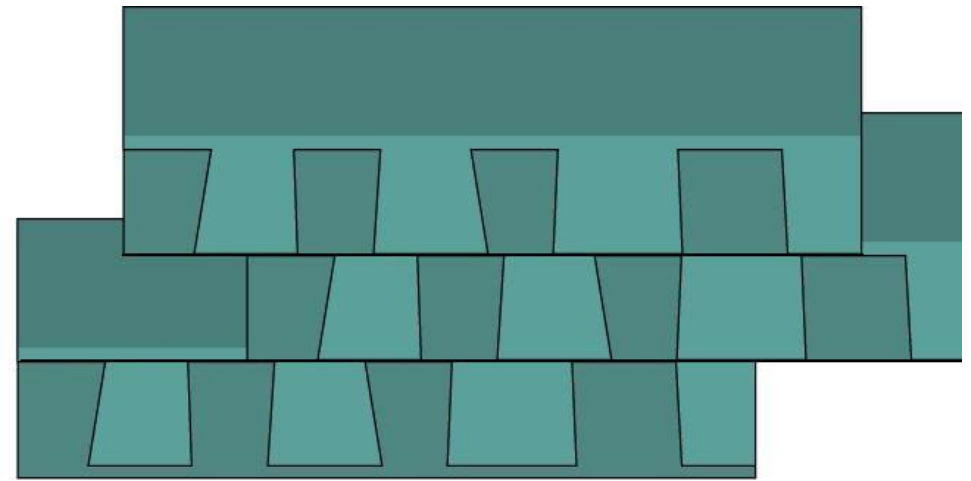
2 No need to align the pattern between the shingles

Saving time for installation of the roof. Cost saving – zero waste installation!

Single-layer roofing shingles



Multilayer roofing shingles



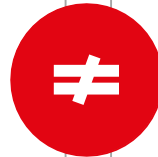
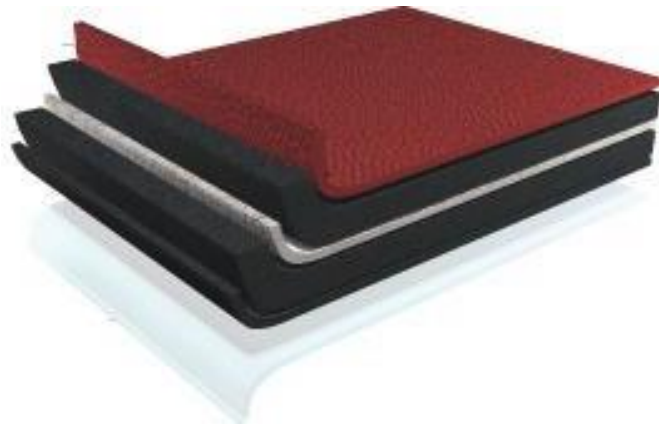
Laying at random!

ADVANTAGES OF MULTILAYER ROOFING SHINGLES

3 Incredible strength

Puncture, piercing, damaging of multilayer roofing material is almost impossible!

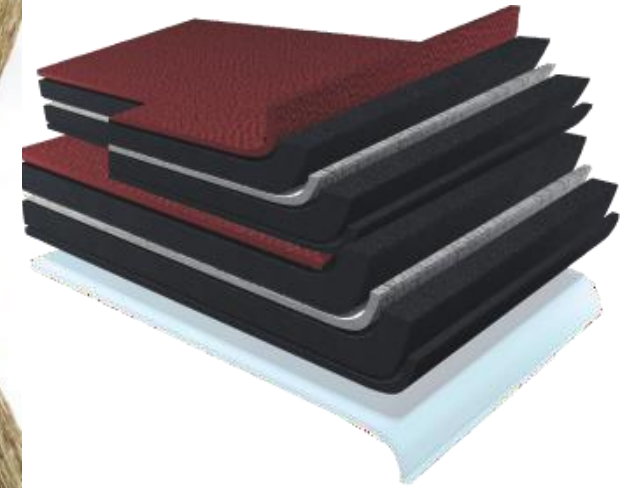
Single-layer roofing shingles



Multilayer roofing shingles



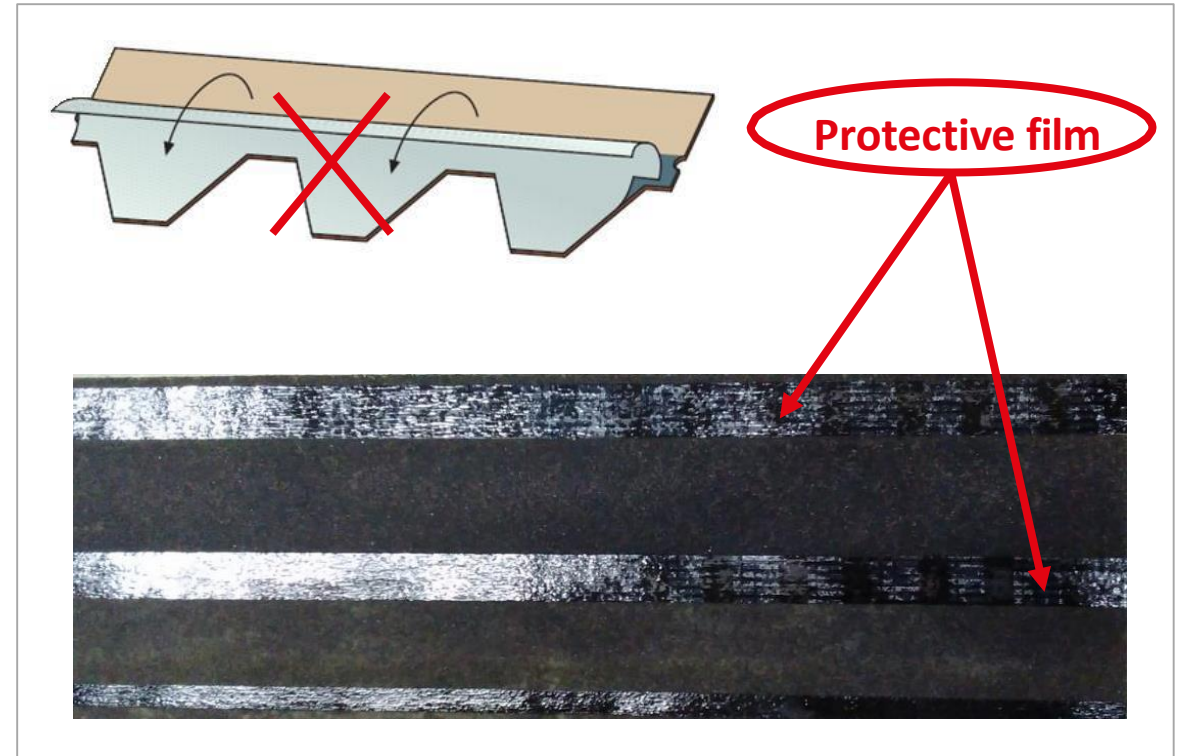
2 layers!



ADVANTAGES OF MULTILAYER ROOFING SHINGLES

4 Do not require removal of the film

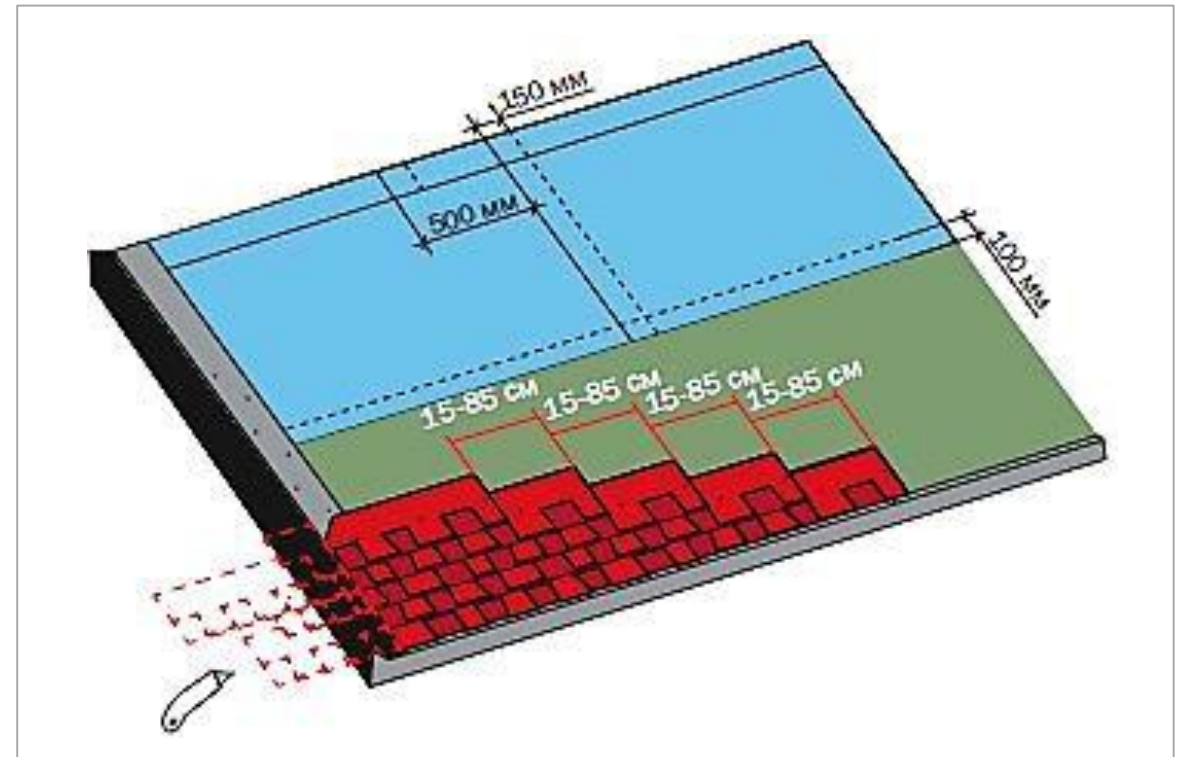
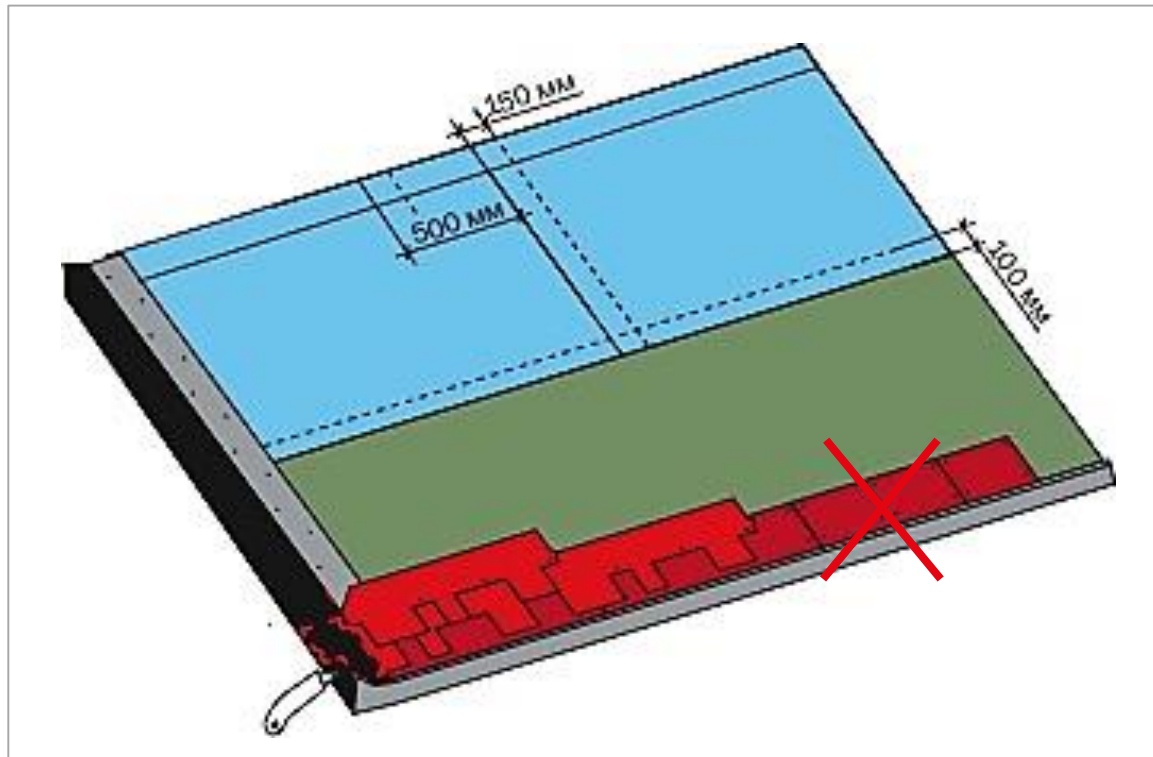
Applicable for COUNTRY and JAZZ collections. It makes roof installation easier!



ADVANTAGES OF MULTILAYER ROOFING SHINGLES

5 Do not require special starting strip (hip & ridge & starter shingles)

Applicable for COUNTRY and JAZZ collections. Saving money for the materials!



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.



MANUFACTURER'S WARRANTY



Louisiana



Alaska



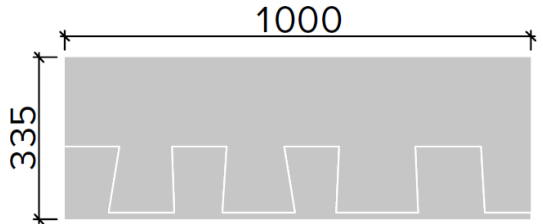
Vermont



Kansas



Montana



Texas



Alabama



Michigan



Atlanta



Indiana



Nevada

COUNTRY AR COLLECTION



JAZZ COLLECTION

An exquisite color palette, an intricate play of hues and a dramatic 3D profile. A special pattern creates an appealing look of natural handmade tiles like slate or wooden shakes. These double-layer roofing shingles have an increased thickness and stand out for their enhanced endurance and wind resistance. The nailing area is additionally reinforced with glass threads that ensure improved flexibility, tear strength and overall reliability.

60
YEARS

MANUFACTURER'S
WARRANTY



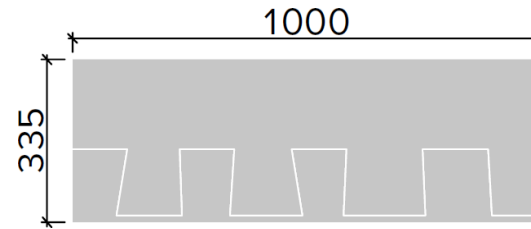
Indigo



Corrida



Barcelona



Seville



Alicante



Sicily



Castile

JAZZ COLLECTION



WESTERN COLLECTION

The patent design of these double-layer roofing shingles has no analogues 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.



MANUFACTURER'S
WARRANTY



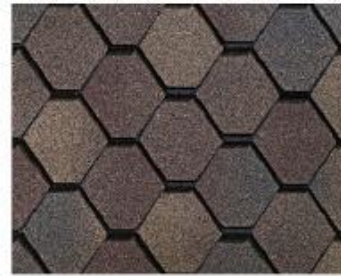
Canyon



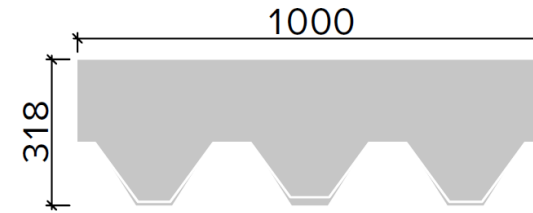
Klondike



Niagara



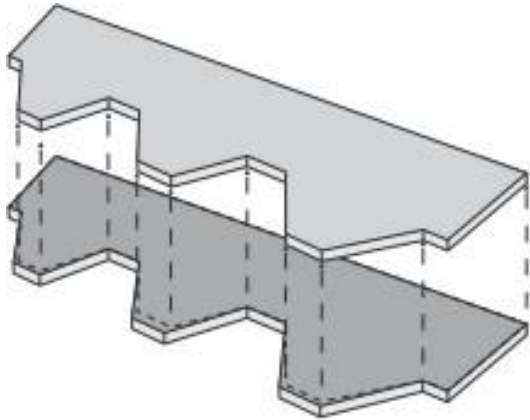
Prairie



WESTERN COLLECTION



4 layers!!!



Self-adhesive strip for high wind resistance



WESTERN COLLECTION



WESTERN COLLECTION



CONTINENT COLLECTION

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



Asia



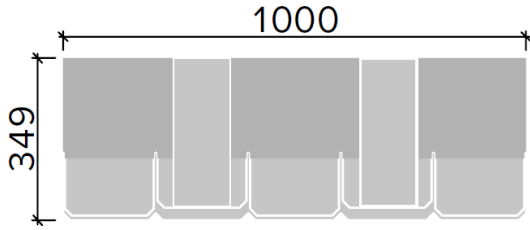
America



Africa



Europe



MANUFACTURER'S WARRANTY

CONTINENT COLLECTION



CONTINENT COLLECTION

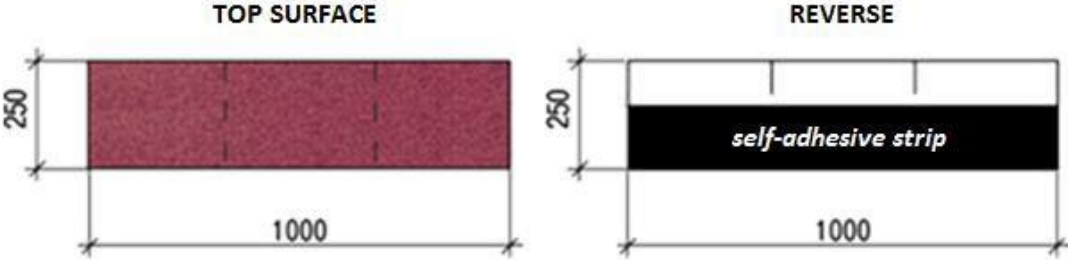
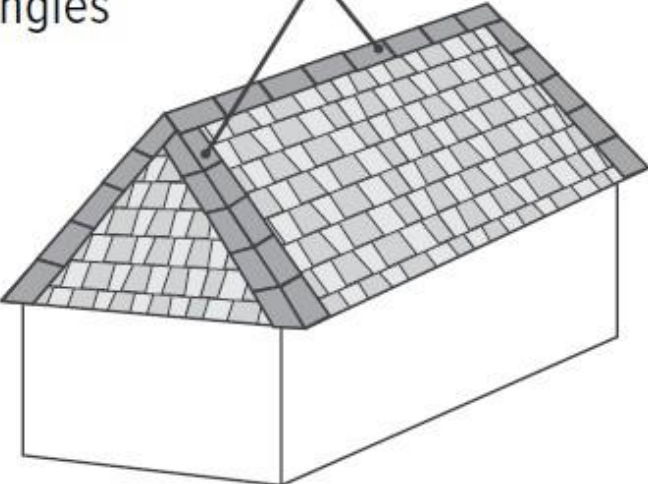




HIP & RIDGE & STARTER SHINGLES

HIP & RIDGE & STARTER SHINGLES

Hip & ridge shingles



Made of SBS-modified bitumen



HIP & RIDGE & STARTER 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.

Package: 12 lin. m (hips & ridge) and 20 lin. m (starter strip).



HIP & RIDGE & STARTER SHINGLES

HIP & RIDGE & STARTER SHINGLES ADVANTAGES AS COMPARED TO CUTOUT PARTS OF REGULAR SHINGLES:


- Excellent flexibility on hips and ridges to best fit the shape of the roof
- High speed and ease of installation
- Less material consumption
- Better wind resistance
- Additional reliability








APPLICATION TECHNOLOGY




INSTALLATION MANUAL




Roofing shingles installation instructions

KNOWLEDGE. EXPERIENCE. CRAFTSMANSHIP.






The starter strip for the «castle» pattern shall be laid with course shingles without preliminary cutting.




If the cutout piece is made of course shingles, shingle tabs must be cut along the earlier marked line.




If required, remove the film from the cut off shingles.


NOTE! DO NOT REMOVE the anti-adhesive film with the «Do Not Remove» message on it from the «castle» shaped shingles.



If course shingles are cut to a certain pattern or if course shingles are used as a starter strip, cover the rear side with TECHNONICOL FIXER mastic where no adhesive layer is present.



Hip & ridge & starter shingles, the cutout piece of course shingles or course shingles are glued on top of underlayment with a step-out of 10–20 mm from the eaves plank bend point. Step-out value depends on slope length and angle, and it increases if they are increased.

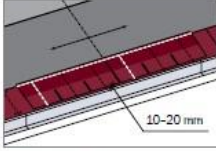


Hip & ridge & starter shingles and cutout pieces of course shingles are fixed with roofing nails in the amount of 12 nails minimum per shingle. Course shingles shall be fixed according to the table on pages 54–56.

INSTALLATION OF ROOFING SHINGLES
58
STARTER STRIP FIXATION

7.4. Fixation of the first and following rows of shingles

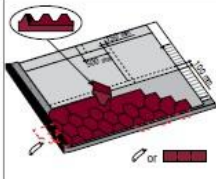
It is recommended to place the first row on long slopes from the slope center to ensure the convenience of horizontal leveling.



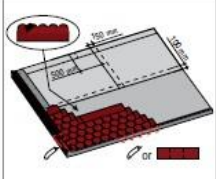
The first row is laid with a step-out of 10–20 mm from the starter strip.

IMPORTANT! The first row of shingles must cover the points of the starter strip's mechanical fixation.

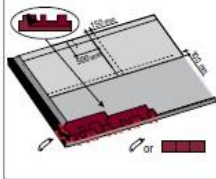
The installation shall be performed in diagonal strips.



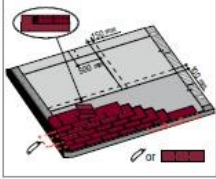
“sonata” cutting pattern



“beaver tail” or cutting pattern



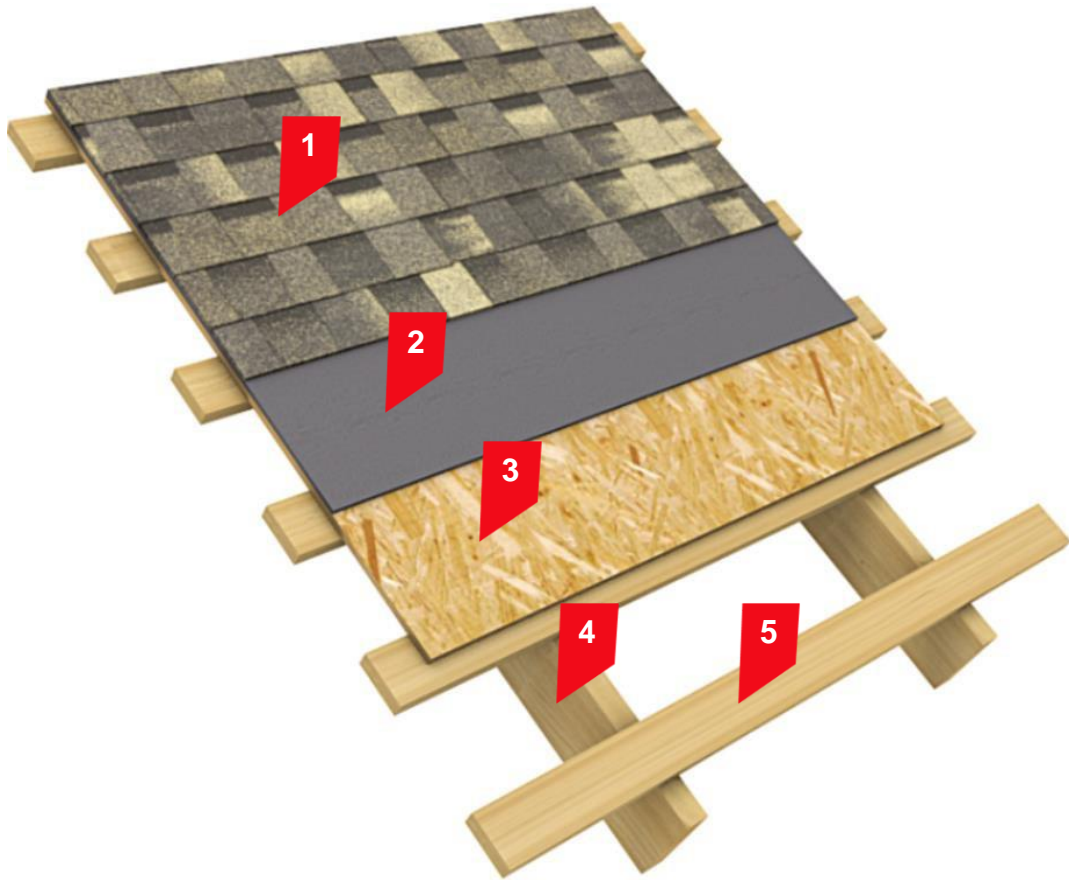
“accord” cutting pattern



“trio”, “quattro” cutting pattern

INSTALLATION OF ROOFING SHINGLES
59
FIXATION OF THE FIRST AND FOLLOWING ROWS OF SHINGLES

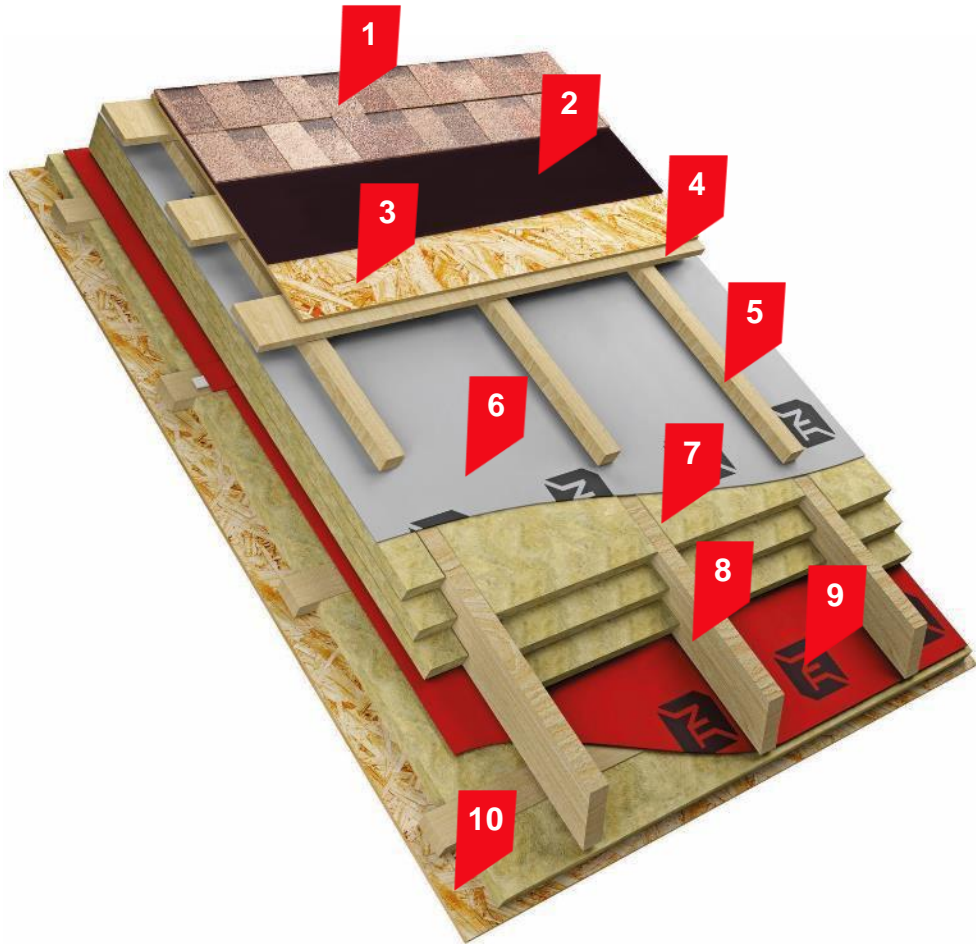
RELIABLE SOLUTIONS



System without thermal insulation:

1. TECHNOMICOL roofing shingles
2. Underlayment membrane of UNDERLAY series
3. Solid base (OSB-3 or plywood)
4. Roof battens
5. Rafter system

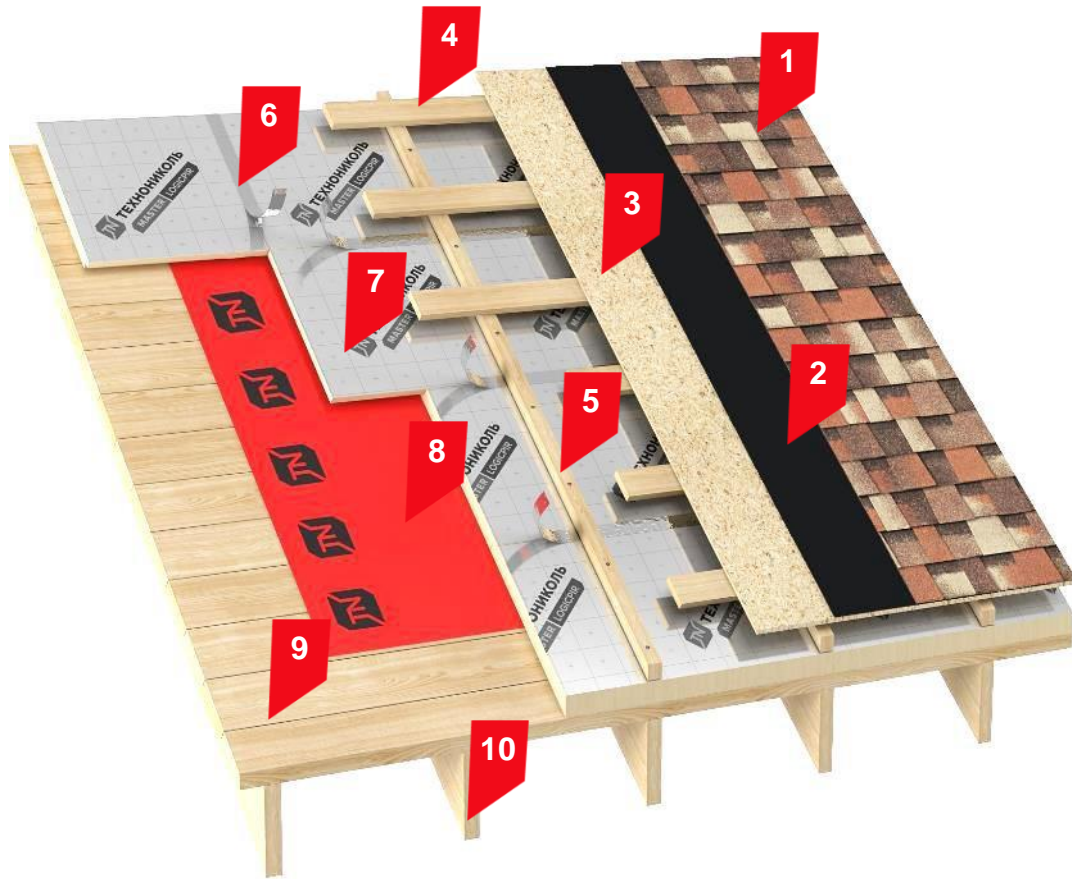
RELIABLE SOLUTIONS



System with thermal insulation of stone wool:

1. TECHNOMICOL roofing shingles
2. Underlayment membrane of UNDERLAY series
3. Solid base (OSB-3 or plywood)
4. Counter battens
5. Ventilation space battens
6. Diffusion membrane TECHNOMICOLALPHA
7. Stone wool slabs TECHNOLITE EXTRA
8. Rafter system
9. Vapor barrier film TECHNOMICOLALPHA
10. Ceiling cladding

RELIABLE SOLUTIONS



System with thermal insulation of PIR boards:

1. TECHNOMICOL roofing shingles
2. Underlayment membrane of UNDERLAY series
3. Solid base (OSB-3 or plywood)
4. Counter battens
5. Ventilation space battens
6. NICOBAND self-adhesive sealant tape
7. LOGICPIR boards with aluminium foil covering
8. Vapor barrier film TECHNOMICOLALPHA
9. Wood decking
10. Rafter system

SYSTEM ACCESSORIES

VALLEY ROLL MATERIAL



UNDERLAY MEMBRANES



ADHESIVE MASTIC FIXER



VENTILATION COMPONENTS



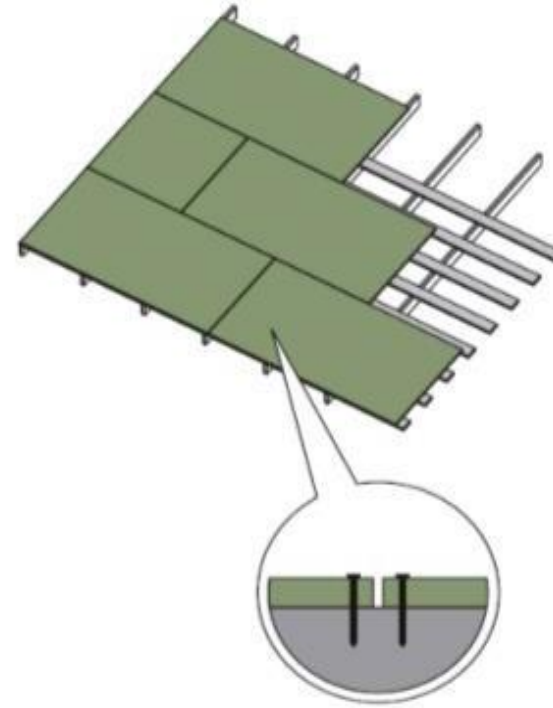
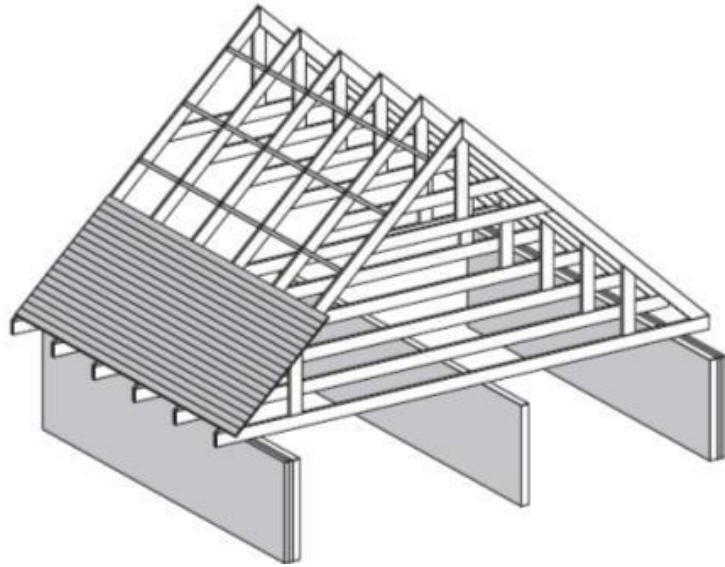
METAL FLASHINGS



ROOFING NAILS



ROOF BASE

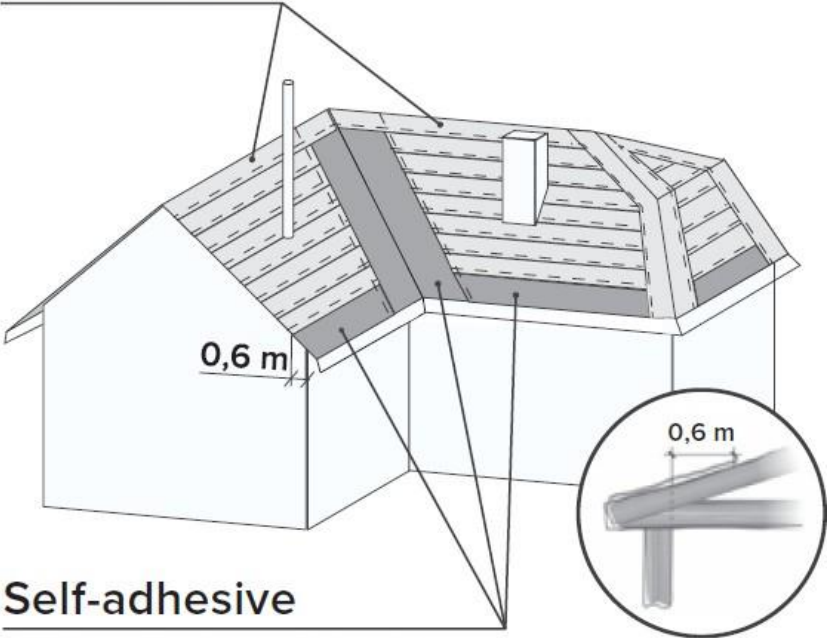


- When selecting material for battens, apply mostly coniferous wood of grade 2 or higher with a relative humidity of 20% maximum
- The base for installation of roofing shingles is to be flat, smooth, solid, rigid and dry
- Sheets of solid boarding are placed with the main axis (long side) perpendicular to the rafters. Horizontal joints (long edges) must rest on the auxiliary support (counter battens)
- There should be a gap of 3-5 mm between boards

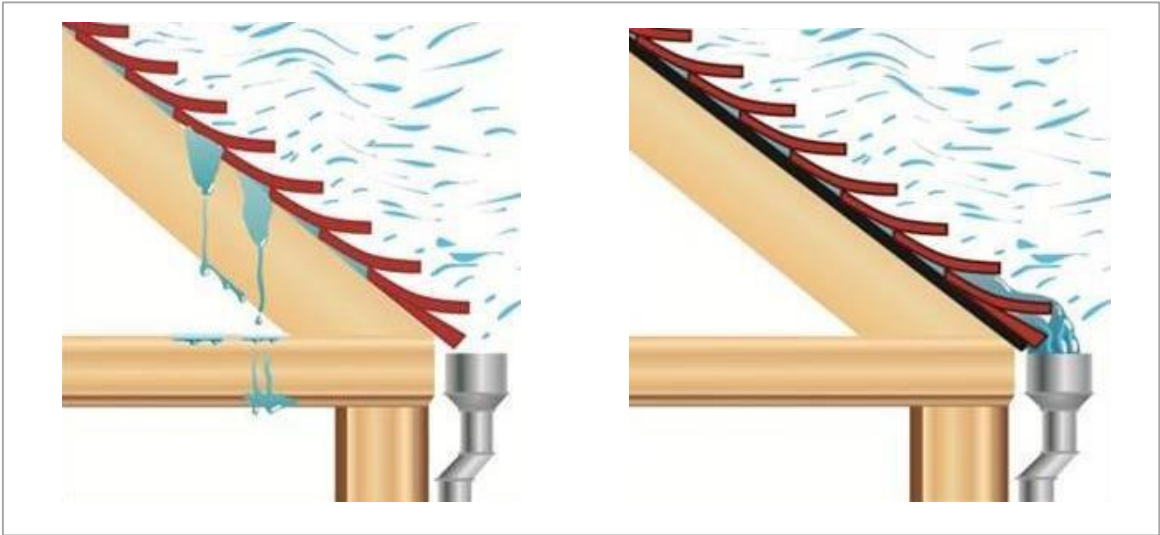
UNDERLAYMENT

The use of underlayment prevents wind-driven rain from reaching the interior of the building.

Underlayment



Self-adhesive bitumen membrane



MIXING OF ROOFING SHINGLES

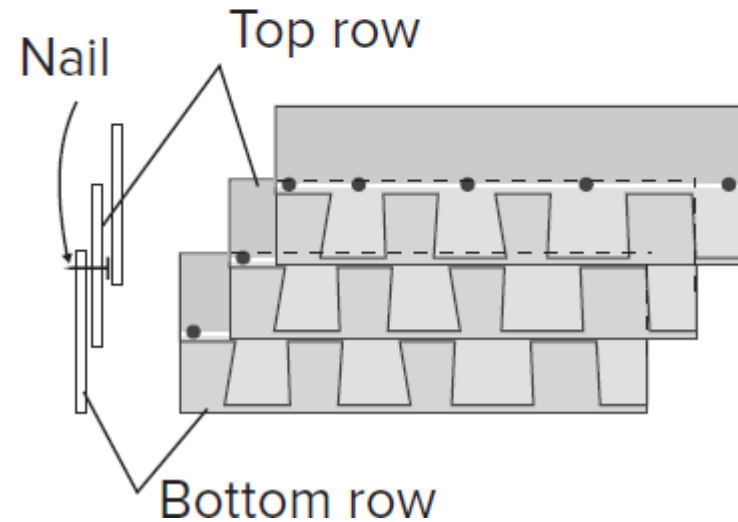
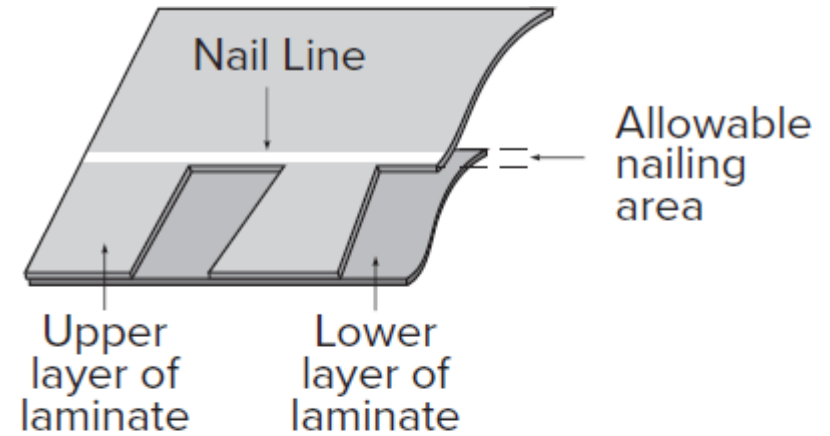
To avoid undesired color unbalance that could appear in visible color spots on a roof, it is recommended to mix shingles from 5 or 6 random bundles.



MULTILAYER ROOFING SHINGLES FASTENING

Place roofing nails exactly at printed nail line to ensure you fasten through a shingle double layer area. The manufacturer applies the special guide line to the front surface of multilayer shingles for reference.

Triple-layer CONTINENT and ATLANTIC cutting patterns require nails of at least 45 mm long.



ROOFING NAILS

Each shingle is fixed to the roof base using special galvanized roofing nails with wide heads in the amount depending on the slope angle. TECHNONICOL roofing nails are available in 2 sizes: 30×3.5 mm and 45×3.5 mm, nail head diameter is 9 mm.

Correct nailing is critical. Nails must be driven so as to make sure that the head is in the same plane with the roofing shingles surface and does not cut through it.



ROOFING SHINGLES FASTENING



Application failure due to the wrong nails type (nail head should be not less than 9 mm in diameter)



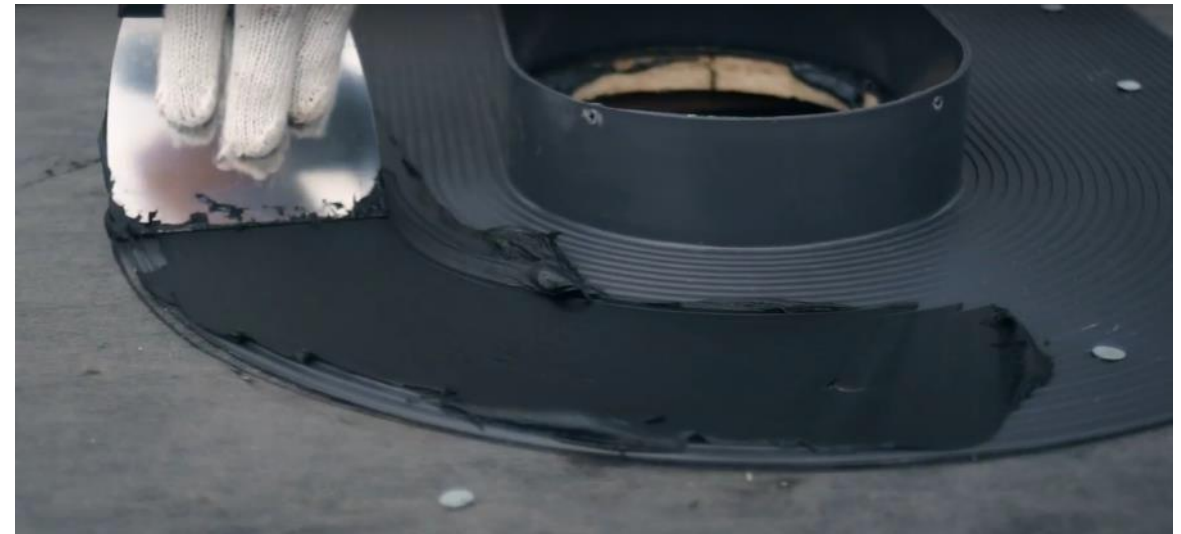
ROOFING SHINGLES FASTENING



MASTIC TECHNONICOL FIXER

Special polymer-bitumen mastic TECHNONICOL FIXER is used to provide extra adhesion of roofing shingles and other bitumen-based materials to such surfaces as wood, metal, concrete, brick, ceramic, etc., as well as for sealing of joints, penetrations, overlaps and connections.

Available in metal buckets of 12 kg and 3.6 kg, cartridge of 310 ml.



VALLEY ROLL MATERIAL BY TECHNONICOL

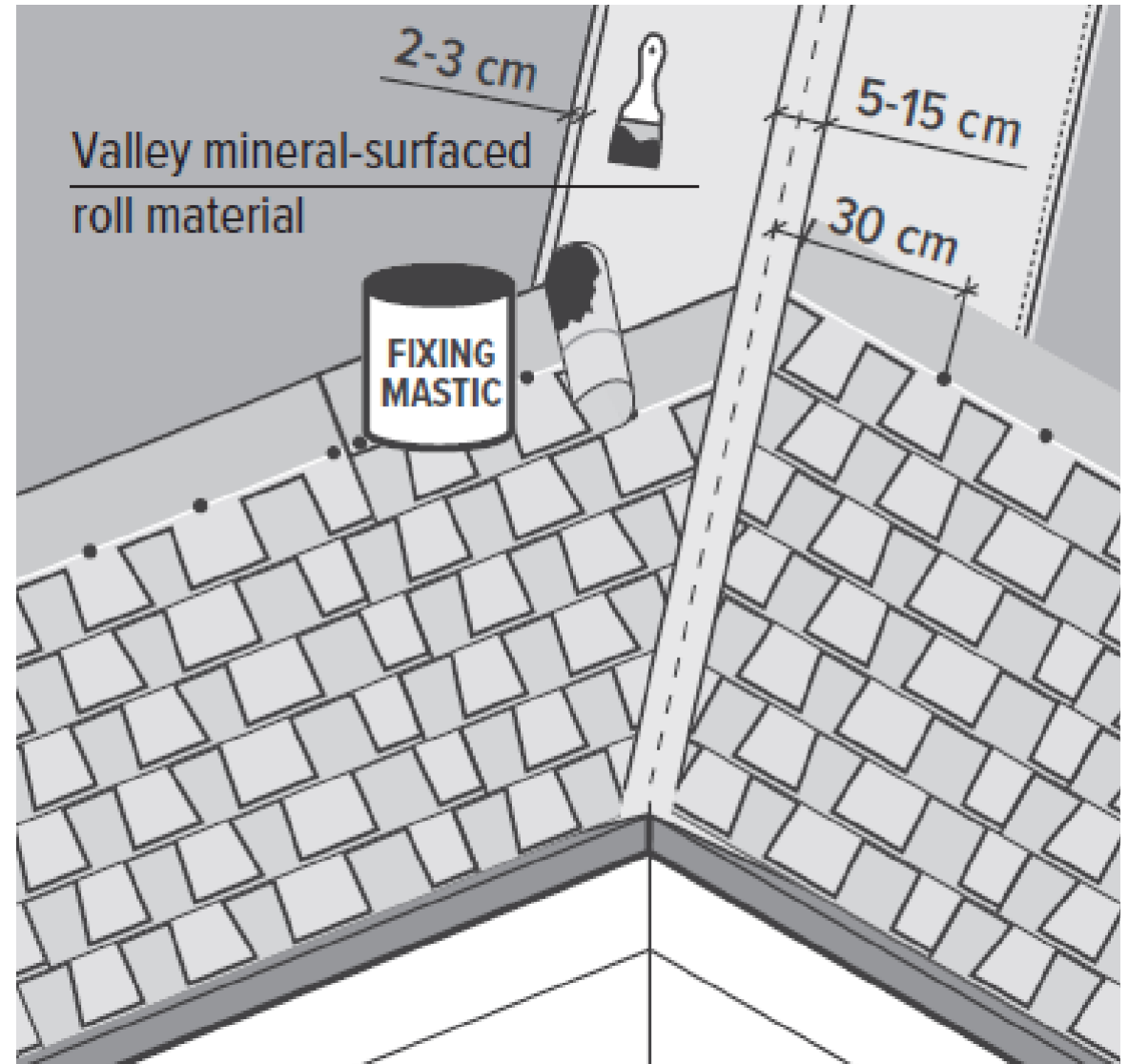
Used as additional waterproofing underlayment in open roof valleys that are prone to leakages under snow and rain loads, and thus require extra protection. This material is also good to seal joints between roofing and chimneys or vertical walls.

Available in many colors to best fit the main color of the roofing shingles.



«OPEN VALLEY» METHOD

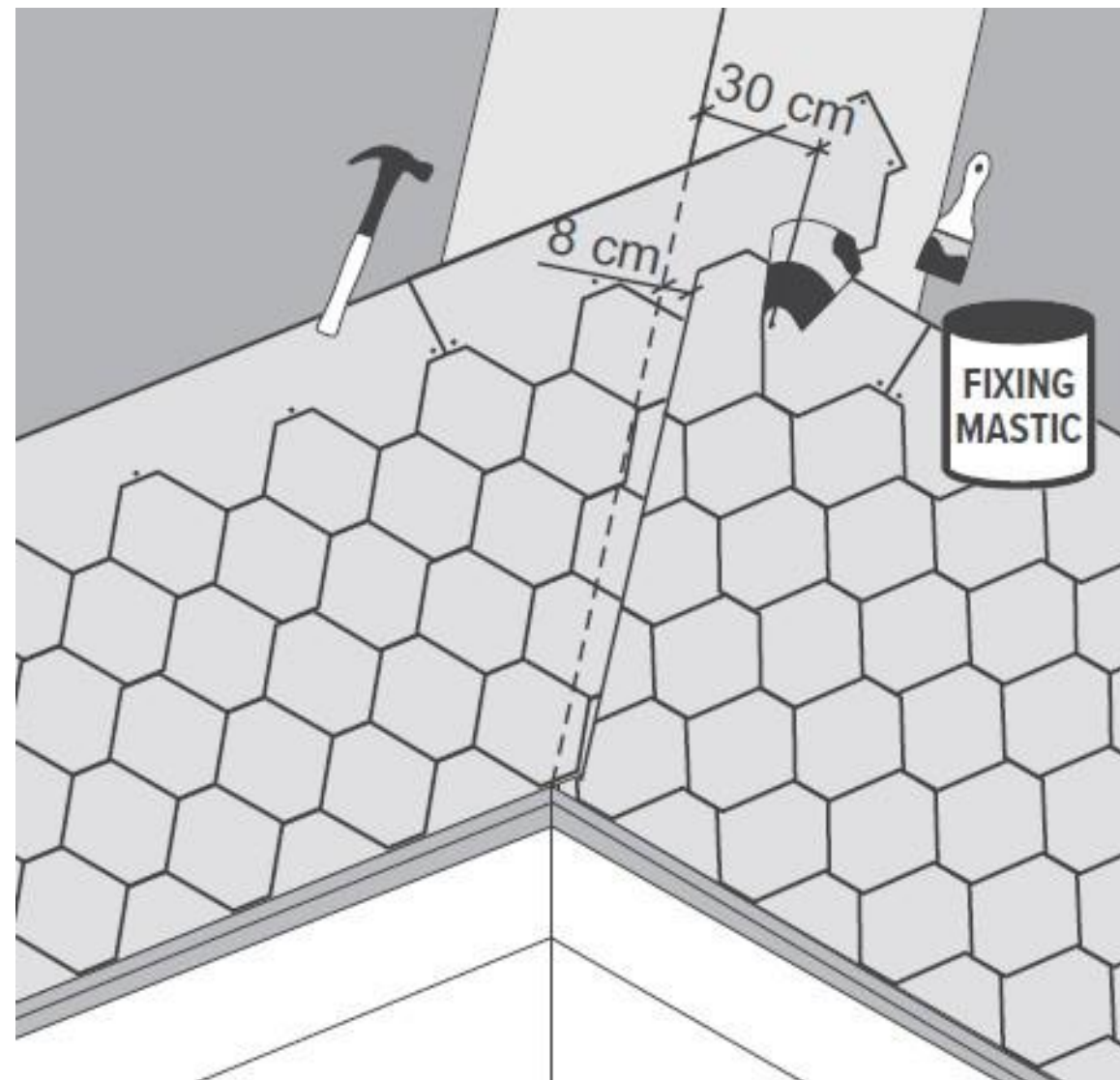
The width of the gutter depends on building or facility location. If the construction site is located near the trees, the gutter width must be increased up to 15 cm maximum to ensure free removal of leaves.



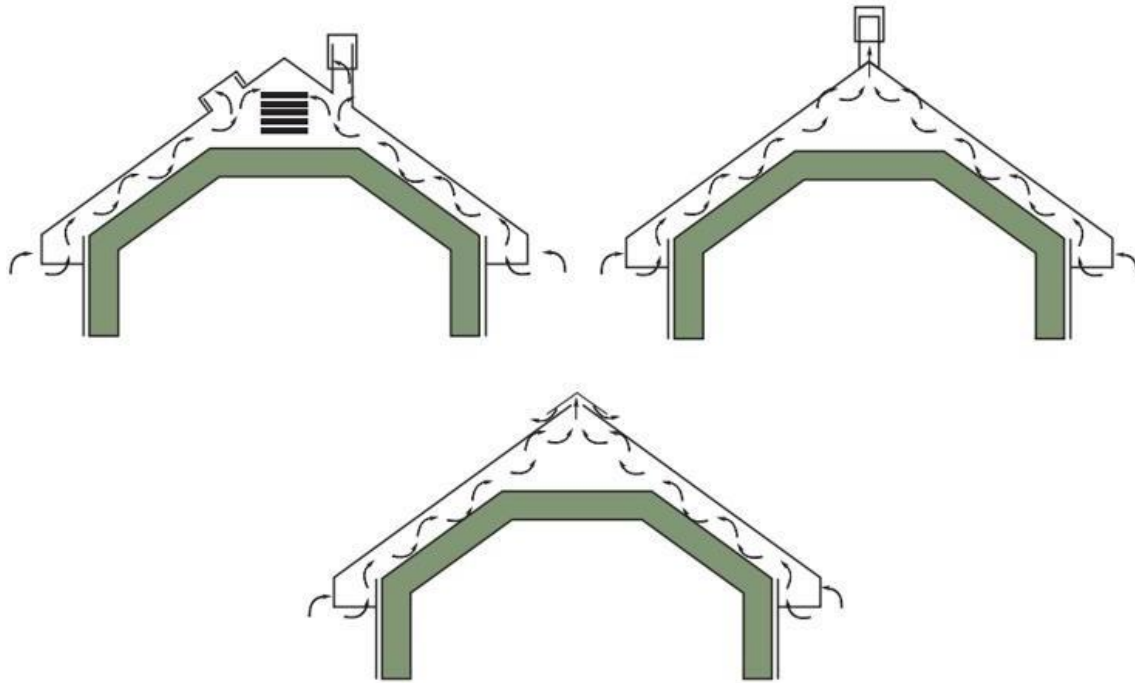
«CLOSE VALLEY» METHOD

This method of valley arrangement does not require the use of valley roll material as the valley zone is being reinforced with the course shingles themselves.

TECHNICOL FIXER mastic must be applied not only to shingles of a low pitched slope but to the underlying shingle from a steeper slope as well to ensure more reliable insulation.



ROOF VENTILATION



Ventilation is a system of intake and exhaust that creates a flow of air in order to remove extra heat and moisture from under the roof.

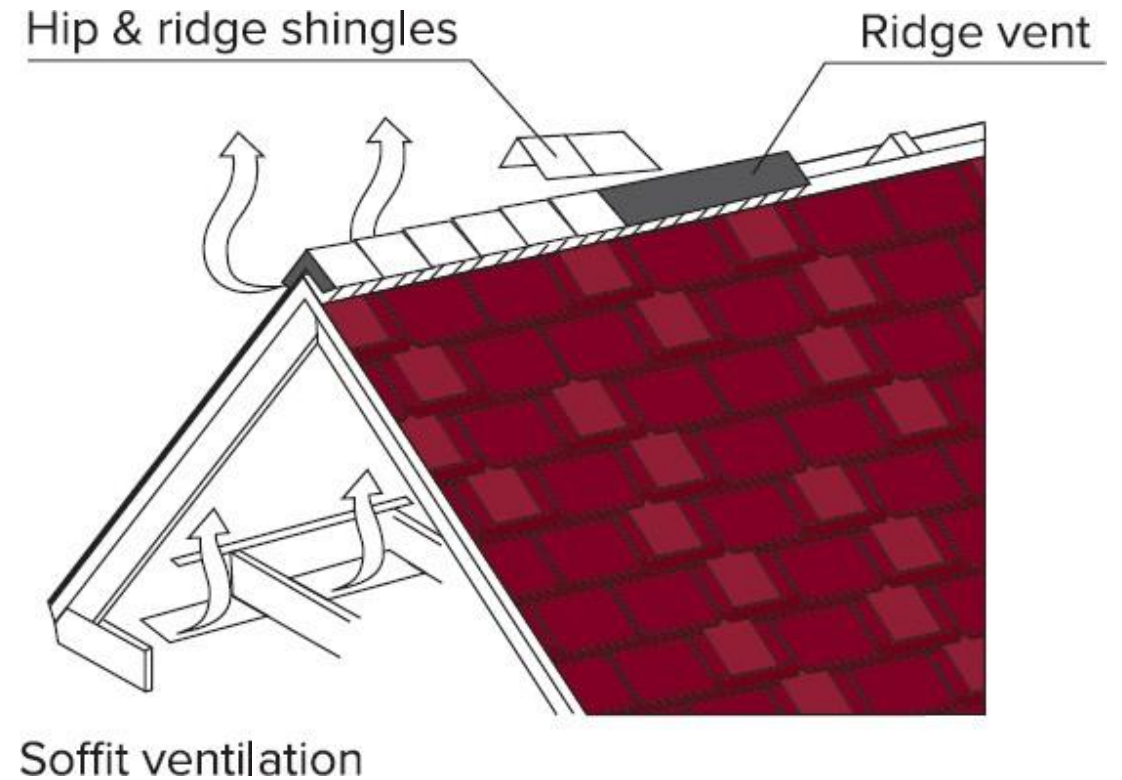
In the absence of a well-functioning ventilation system, the following problems may occur:

- Accumulation of moisture, leading to the formation of condensate on rafters and a substructure, and subsequently mold and fungus, destroying the wooden elements
- Overheating of roofing material and the interior of the attic
- Humidification of thermal insulation, leading to a sharp decrease in its thermal resistance
- Increased cost for internal premises air conditioning

ROOF VENTILATION

The system of roof ventilation includes three main elements: an opening for fresh air inflow, a ventilated gap (duct over thermal ventilation layer) for air circulation, and exhaust openings in the top part of the roof.

The area of the ventilation openings in a roof structure should make up 1/300-1/500 of the attic thermal insulation area. Pressure in the attic should be lower, therefore the area of exhaust openings should exceed that of the intake ones by 10-15%.



VENTILATION COMPONENTS BY TECHNONICOL

Proper engineering of ventilation system along with right materials and accessories extend the service life of the whole construction of the roof.

TECHNONICOL provides the whole range of components that are required for the arrangement of the ventilation system.



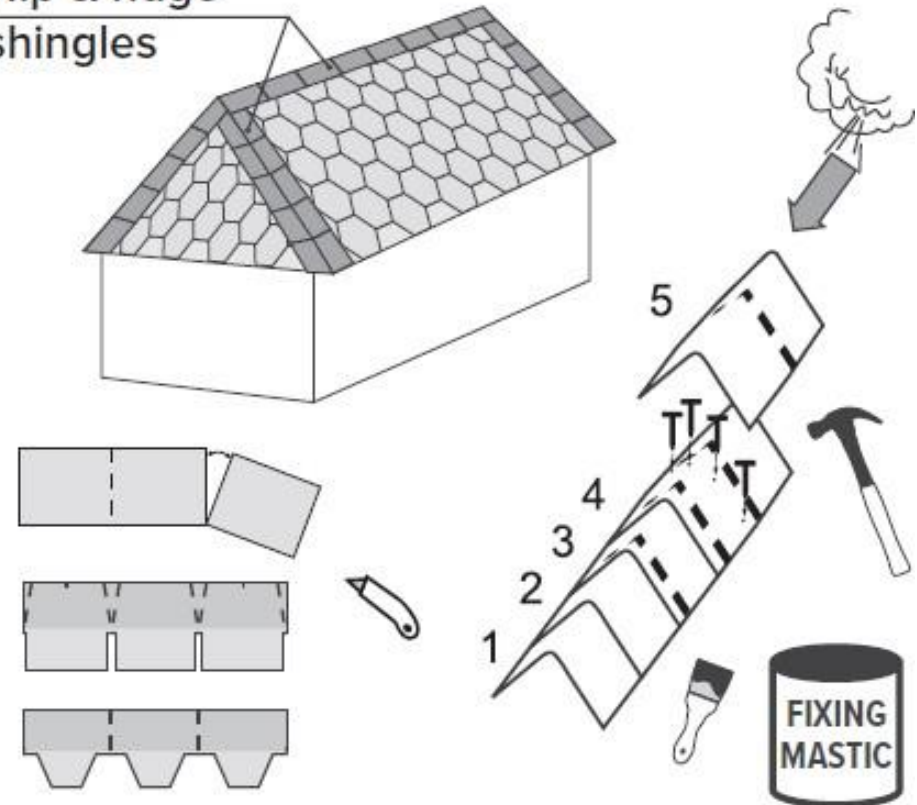
RIDGE ARRANGEMENT

The ridge shall be laid from the side opposite to prevailing winds in this area.

Hip & ridge shingles shall be fixed with a 30-50 mm overlap with above shingles that must cover the nails fixing the underlying layer of shingles.



Hip & ridge shingles

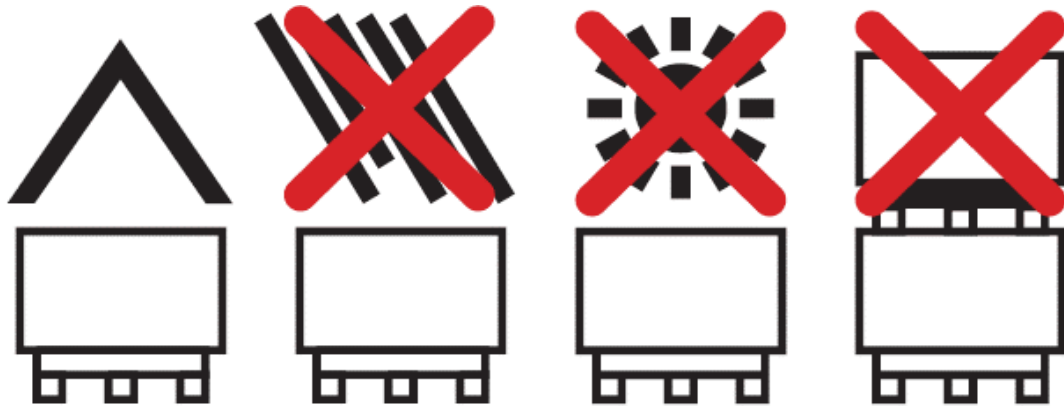




TRANSPORTATION AND STORAGE

ROOFING SHINGLES STORAGE REQUIREMENTS

- Bundles of roofing shingles should be stored on pallets
- Pallets of shingles should be stored in a dry, covered, ventilated area with the temperature of not more than 40 °C
- Do not stack pallets on top of each other
- Transportation and storage of pallets in two or more rows is possible only when using the racks and special shelving units
- To avoid sticking of shingles inside the bundle do not expose them to direct sunlight
- In order to ensure unobstructed separation of roofing shingles from one another, it is recommended to slightly bend and shake the bundle before opening



GUARANTEED STORAGE LIFE

- CONTINENT, WESTERN collections – 36 months
- JAZZ, COUNTRY AR collections – 24 months
- CLASSIC series – 18 months





MARKETING

EXAMPLES OF OUTDOOR PROMOTION



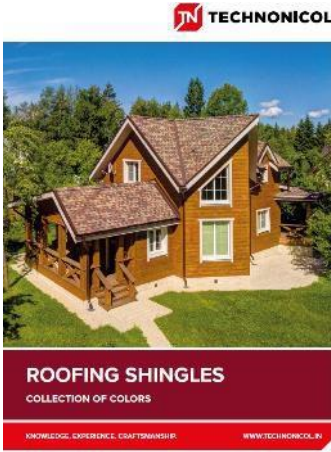
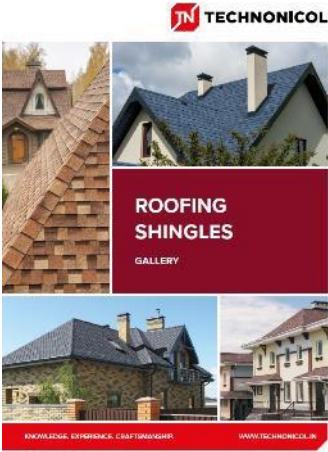
EXAMPLES OF INDOOR PROMOTION



EXAMPLE OF SHOWROOM



MARKETING INSTRUMENTS





TECHNONICOL



**THANK YOU FOR
YOUR ATTENTION!**