

ROOFING SHINGLES BY TECHNOMICOL

THE SMARTEST SOLUTION FOR YOUR PITCHED ROOF





140

Retail chain divisions



6

Research Centers



18

Training Centers



53

Plants

17 plants
Roll bitumen and polymer-bitumen materials

8 plants
Mastic compounds and primers

3 plants
Synthetic membranes

3 plants
Raw materials

7 plants
Stone wool

1 plant
Glass mineral wool

8 plants
XPS

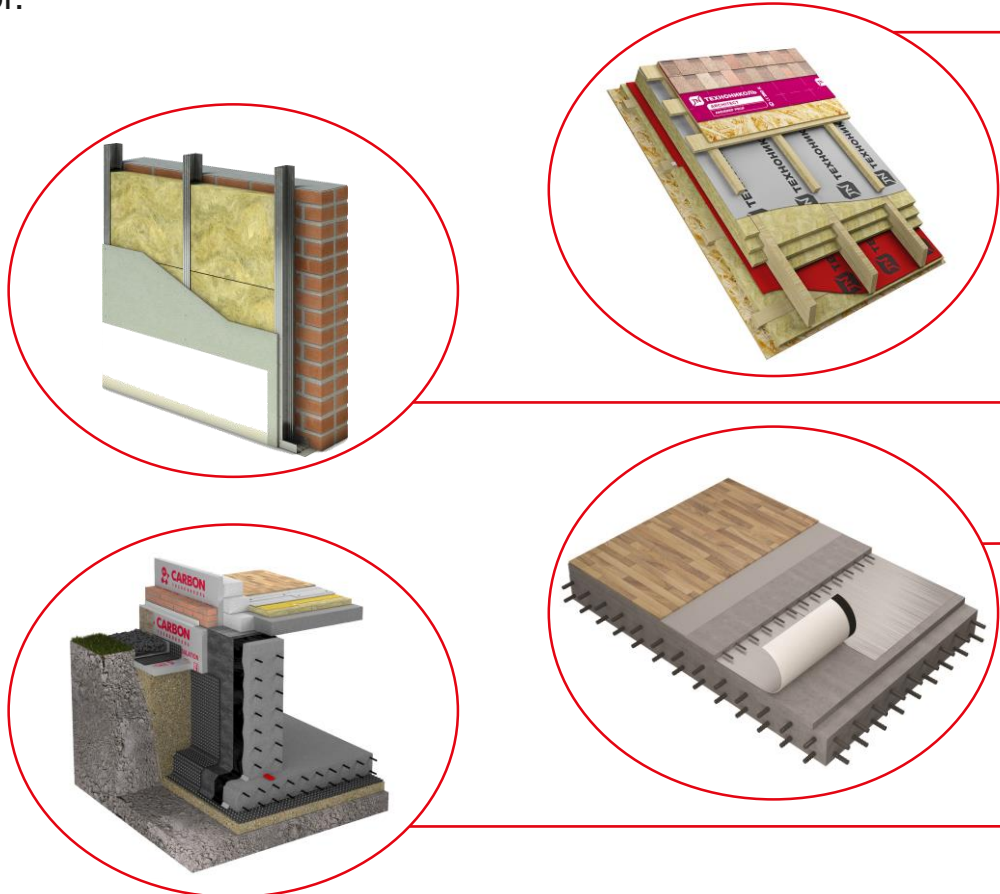
1 plant
PIR

3 plants
Roofing shingles

1 plant
Composite roofing tiles

1 plant
Polyurethane foam

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.



ROOFING SHINGLES BY TECHNONICOL

ROOFING SHINGLES

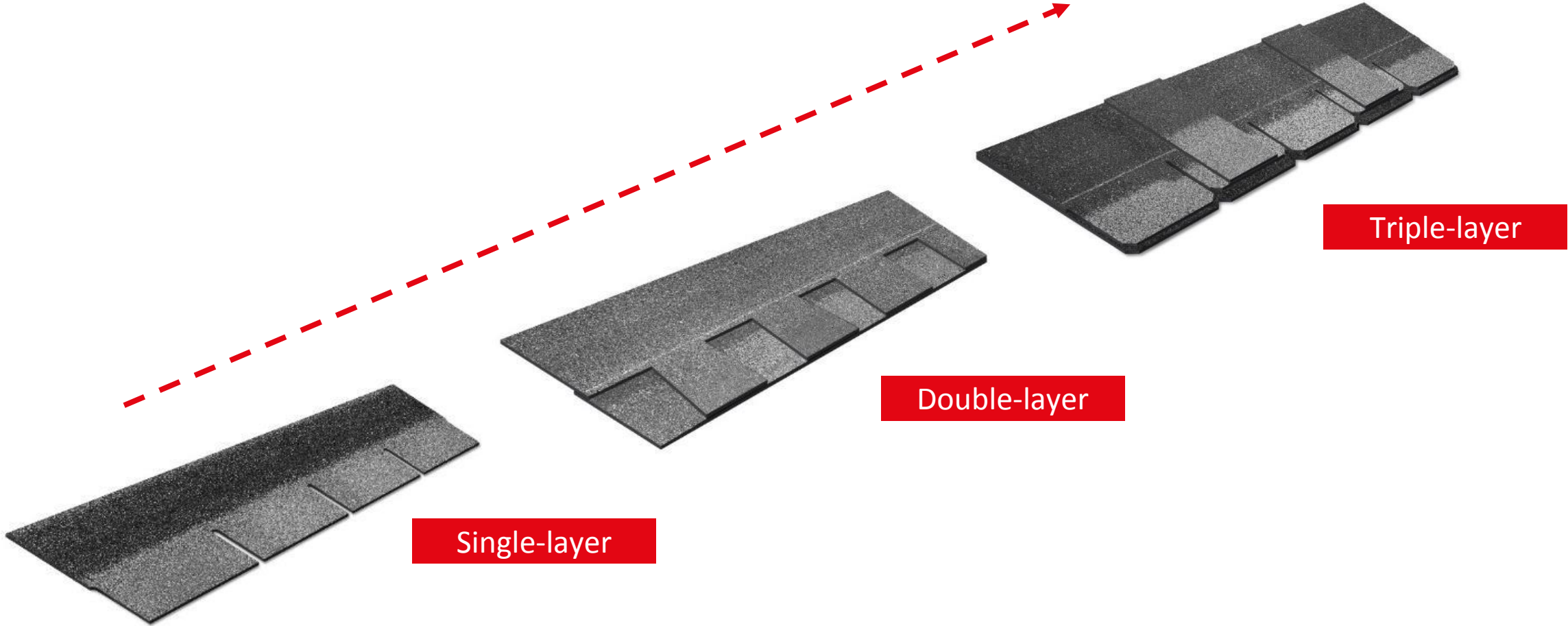
Roofing shingles are the construction material for residential roofing applications that is used on roof slopes of 12° or greater. It is the smartest solution for complex or intricate roof design. Bitumen shingles do not fade; they are resistant to harmful environmental impacts, decay, corrosion, fire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

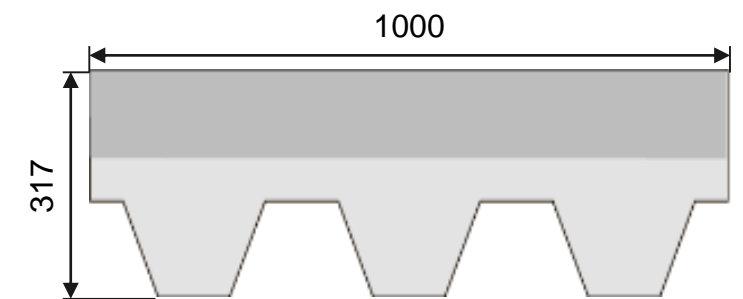
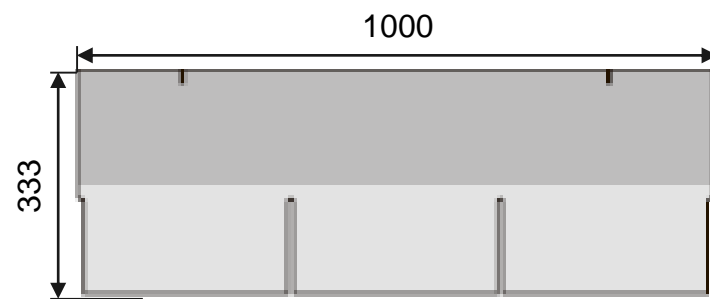
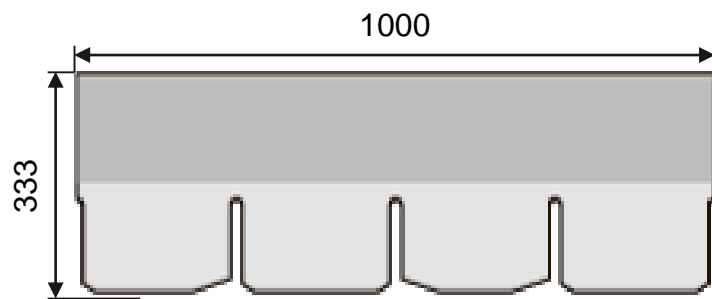
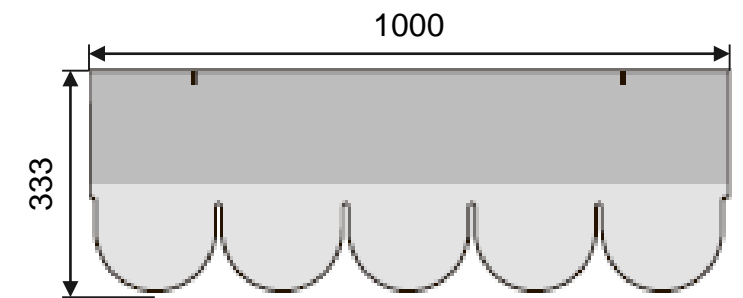
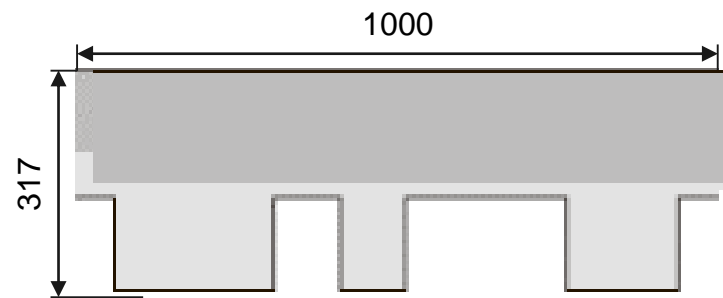
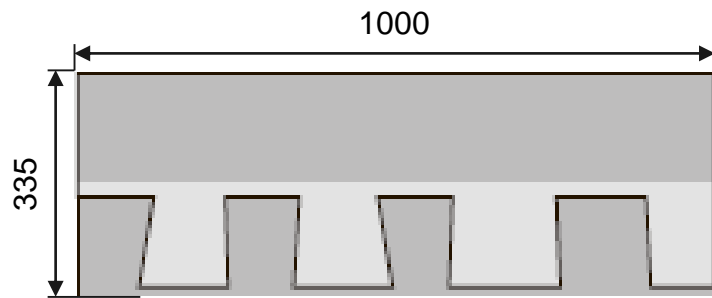
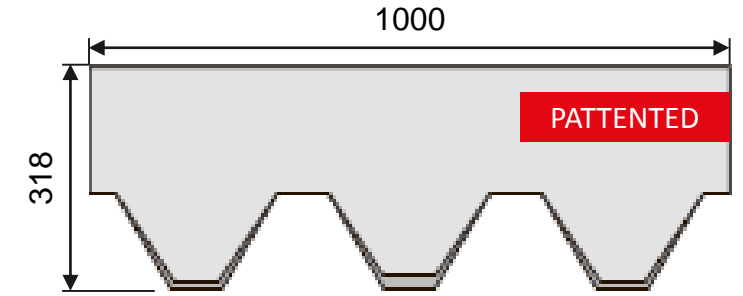
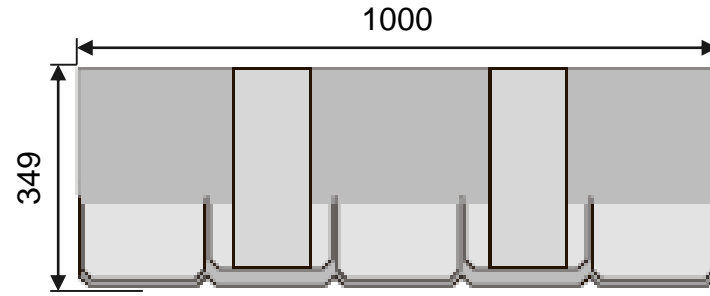
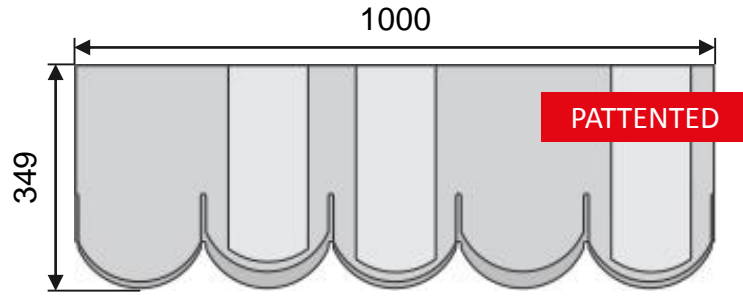


TECHNONICOL Corporation manufactures roofing shingles since 2002. Export plants of TECHNONICOL have passed UNI EN ISO 9001 certification and strictly comply with the quality requirements determined by this international standard. Our plants producing roofing shingles:

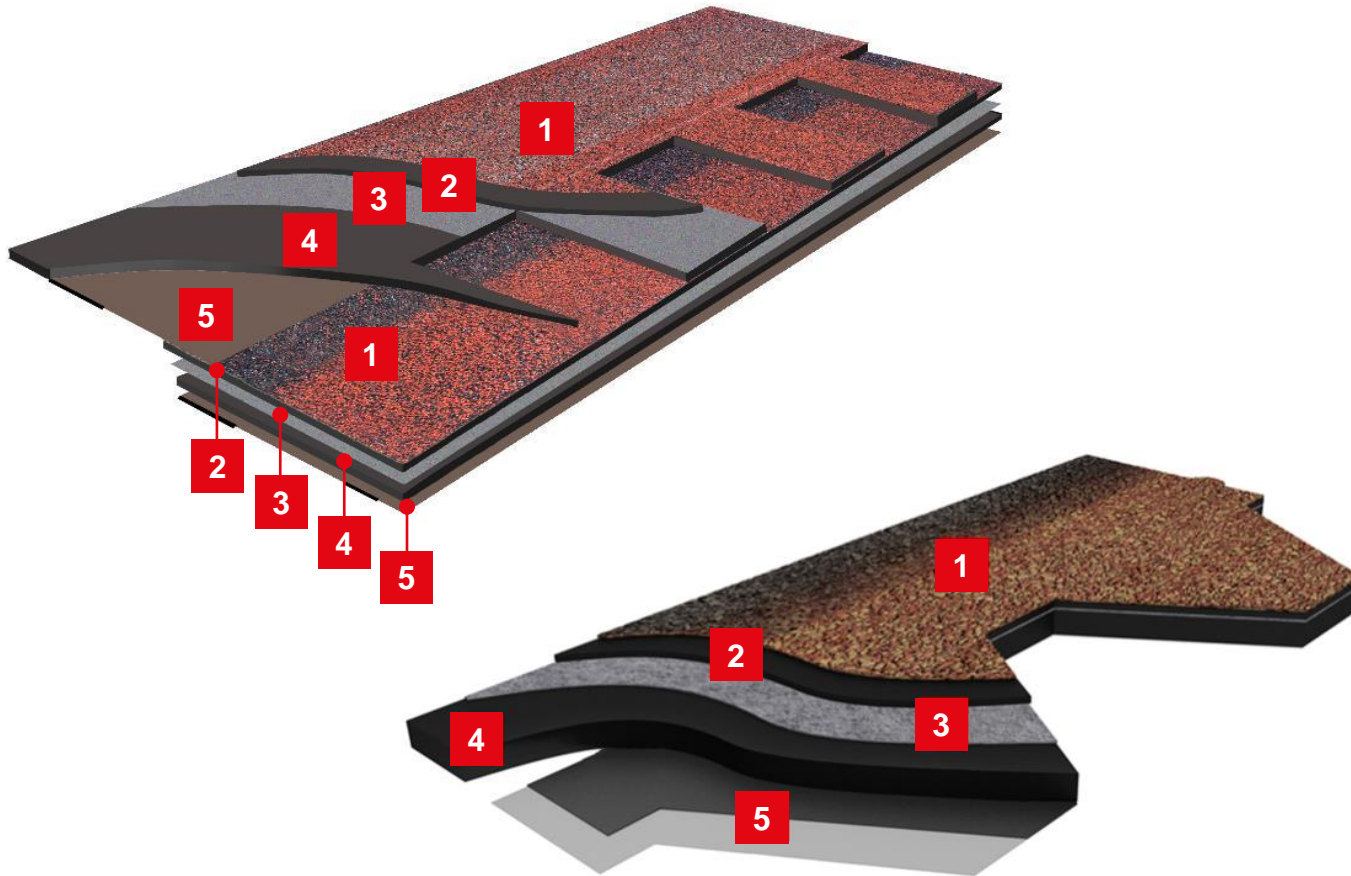
- MIDA plant, Lithuania, 2002
- Shinglas plant, Ryazan, 2005
- Shinglas plant 2, Ryazan, 2013







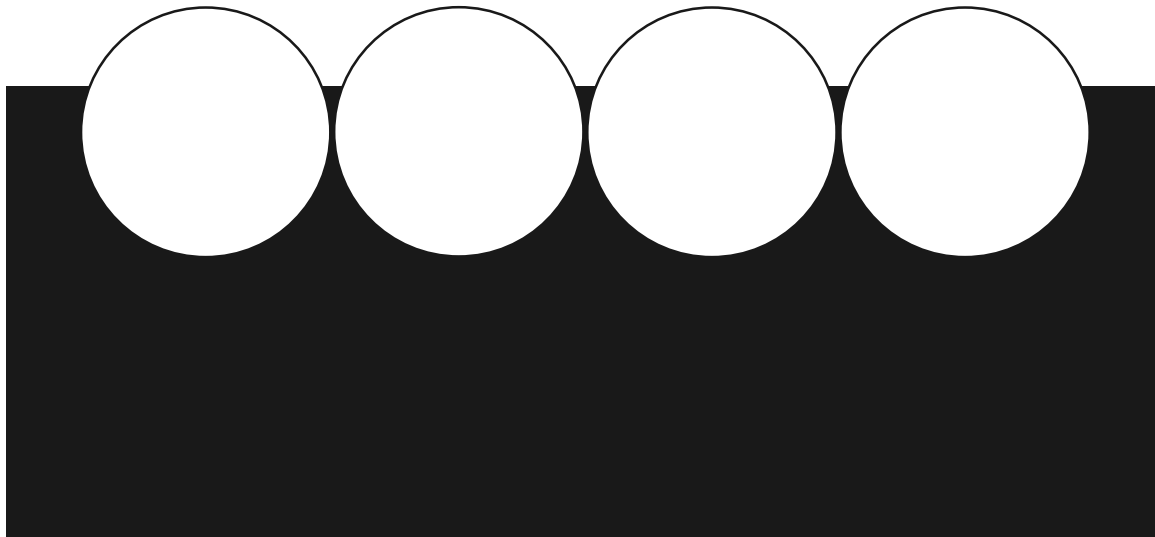
Roofing shingles structure:



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

BASALT COLORED 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

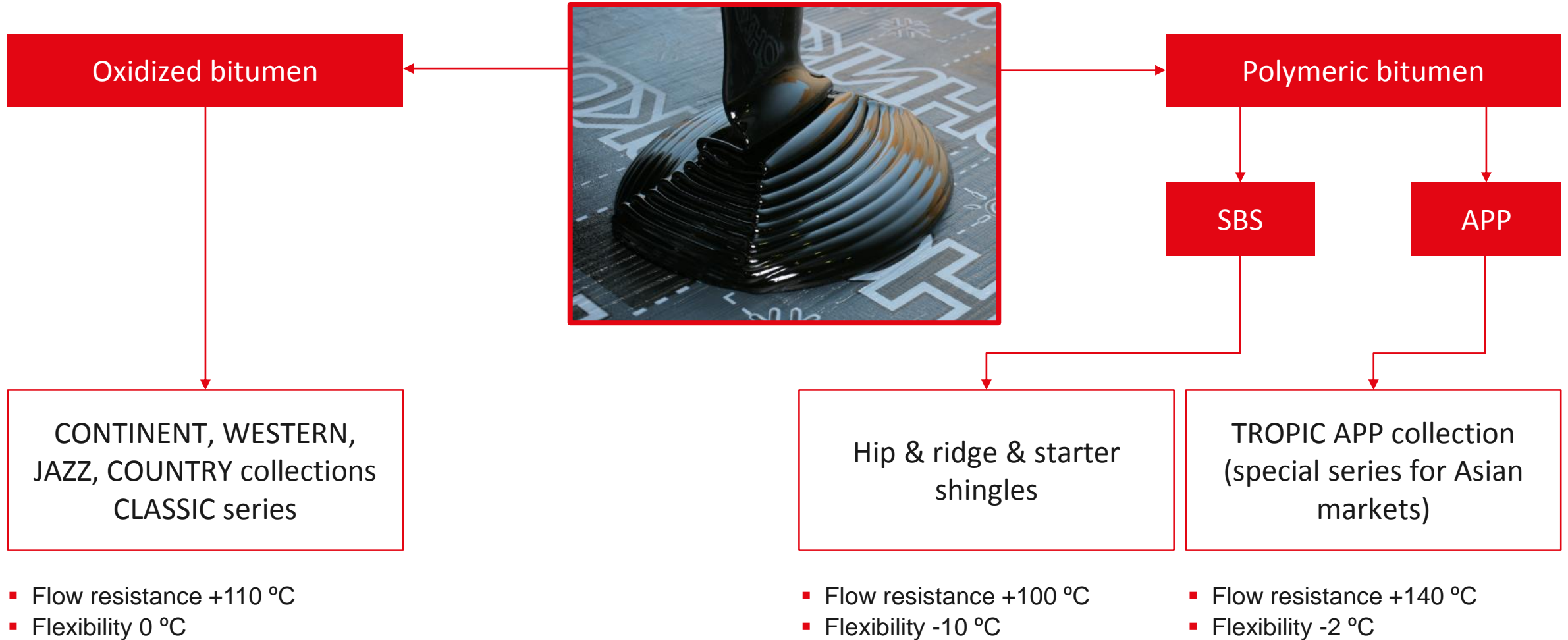


GLASS FIBRE REINFORCEMENT:

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



BITUMEN COMPOUND:





Properties	Multilayer roofing shingles				Single-layer roofing shingles			
	CONTINENT	WESTERN	JAZZ	COUNTRY	TROPIC APP	CLASSIC		HIP & RIDGE
						MODERN	TRIO SUPER	
Warranty, years	60	55	50	50	50	30	30	-
Bitumen modification	oxidized	oxidized	oxidized	oxidized	APP	oxidized	oxidized	SBS
Flow resistance, °C	110	110	110	110	150	110	110	100
Thickness per layer, mm	3.2±0.2	3.0±0.2	3.0±0.2	2.7±0.2	2.8±0.2	3.0±0.2	3.1±0.2	3.4±0.2
Bundle weight, kg	38.1	26.4	27.0	32.5	25.5	32.1	33.0	25.0
Coverage per bundle, m ²	1.5	1.5	2.0	2.6	3.0	3.0	3.0	5.0
Quantity on the pallet, m ²	45.0	54.0	84.0	93.6	126.0	108.0	108.0	200



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 12.5 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

The CLASSIC series covers a wide array of attractive colors and various cutting patterns to suit any taste. High-grade asphalt coating is used to produce these single-layer roofing shingles. The CLASSIC series offers an assured quality and comes with a manufacturer's warranty of 30 years.

30
YEARS

MANUFACTURER'S
WARRANTY

MODERN



Dune



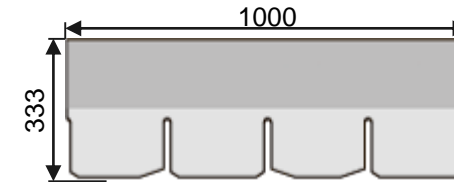
Glacier



Marble



Plateau



TRIO SUPER



Red



Brown



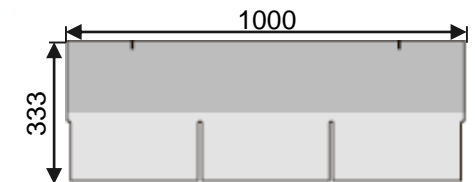
Green



Grey



Red-brown





TROPIC APP collection was specially designed for Asian countries. These shingles are manufactured on a base of APP modified bitumen compound to provide quick and easy torch-on application. APP polymer and special additives give exceptional physical and mechanical properties to the product including the heat resistance of 150 °C. Copper-containing color granules prevent algae grown on the roof for more than 10 years.

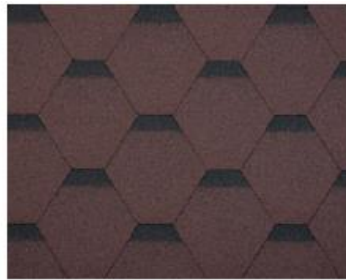
50
YEARS

MANUFACTURER'S
WARRANTY

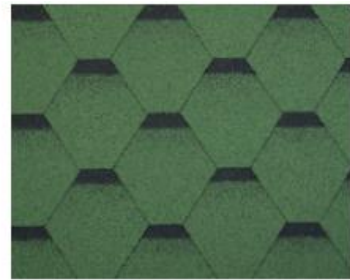
HEXAGONAL



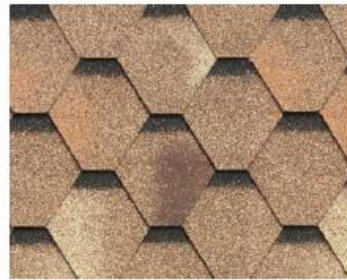
Red



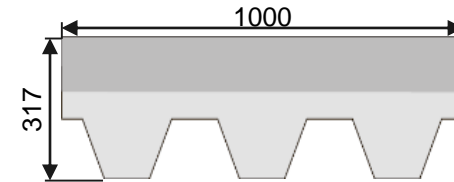
Brown



Green



Terra



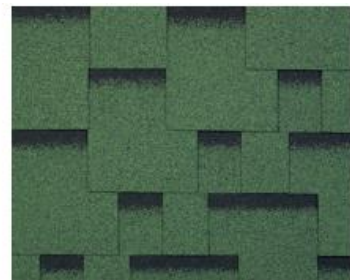
ACCORD



Red



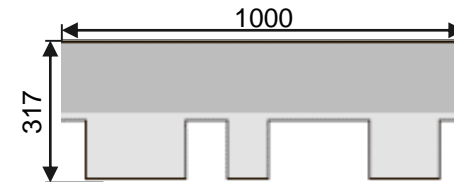
Brown



Green



Terra





MULTILAYER ROOFING SHINGLES

1 Stunning 3D pattern

The roof has an outstanding look!

The roof with single-layer roofing shingles



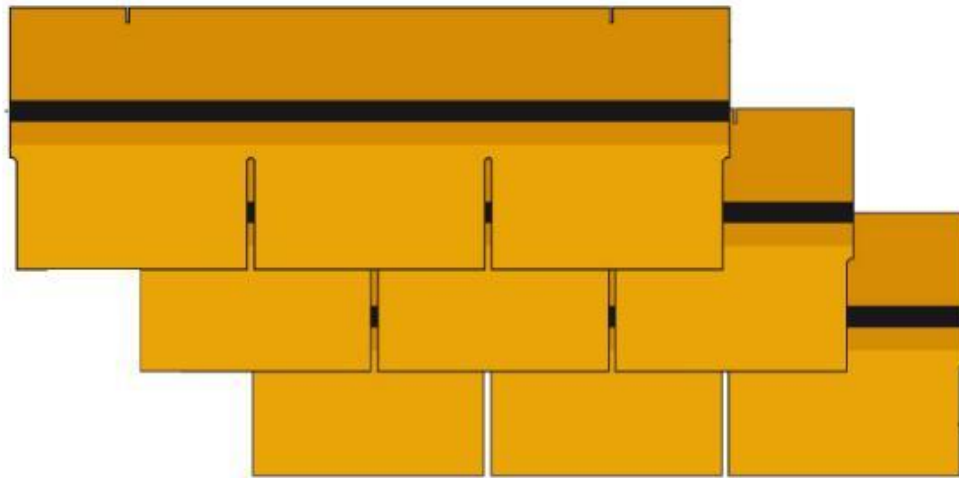
The roof with multilayer roofing shingles



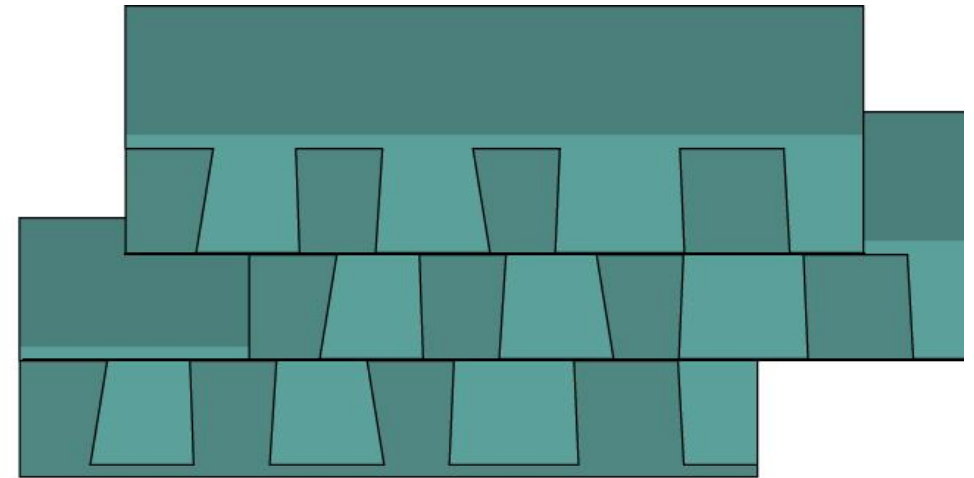
2 No need to align the pattern between the shingles

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

Single-layer roofing shingles



Multilayer roofing shingles

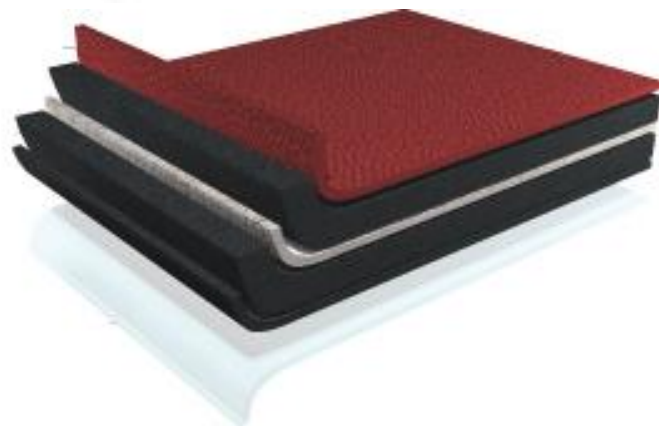


Laying at random!

3 Incredible strength

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

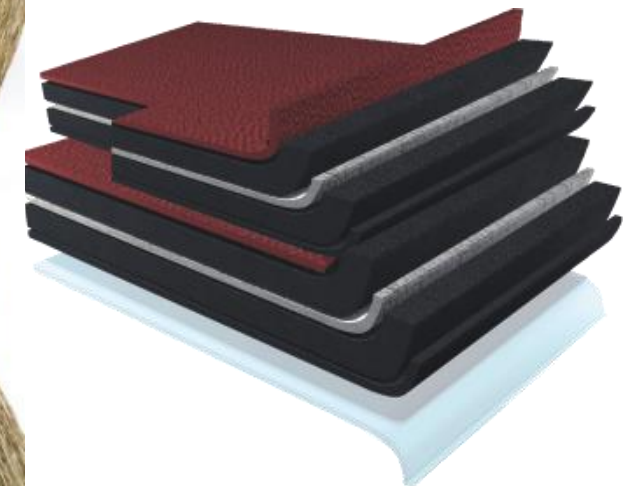
Single-layer roofing shingles



Multilayer roofing shingles

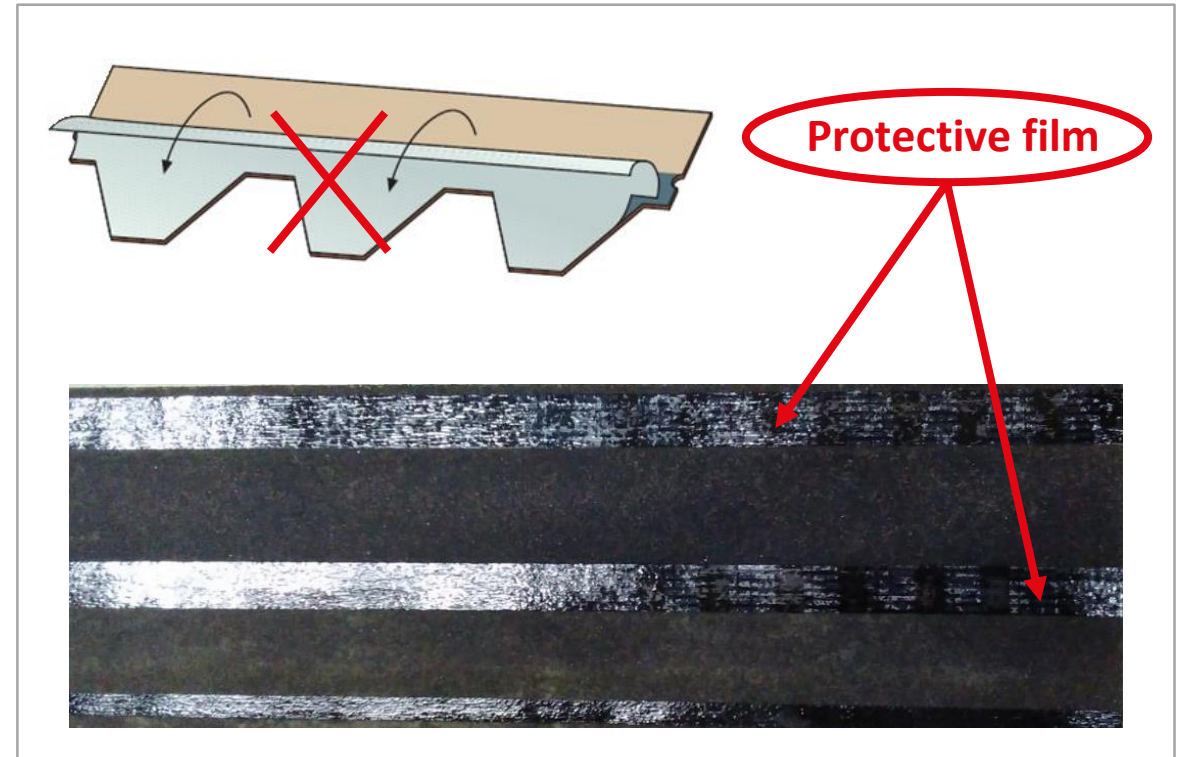


2 layers!



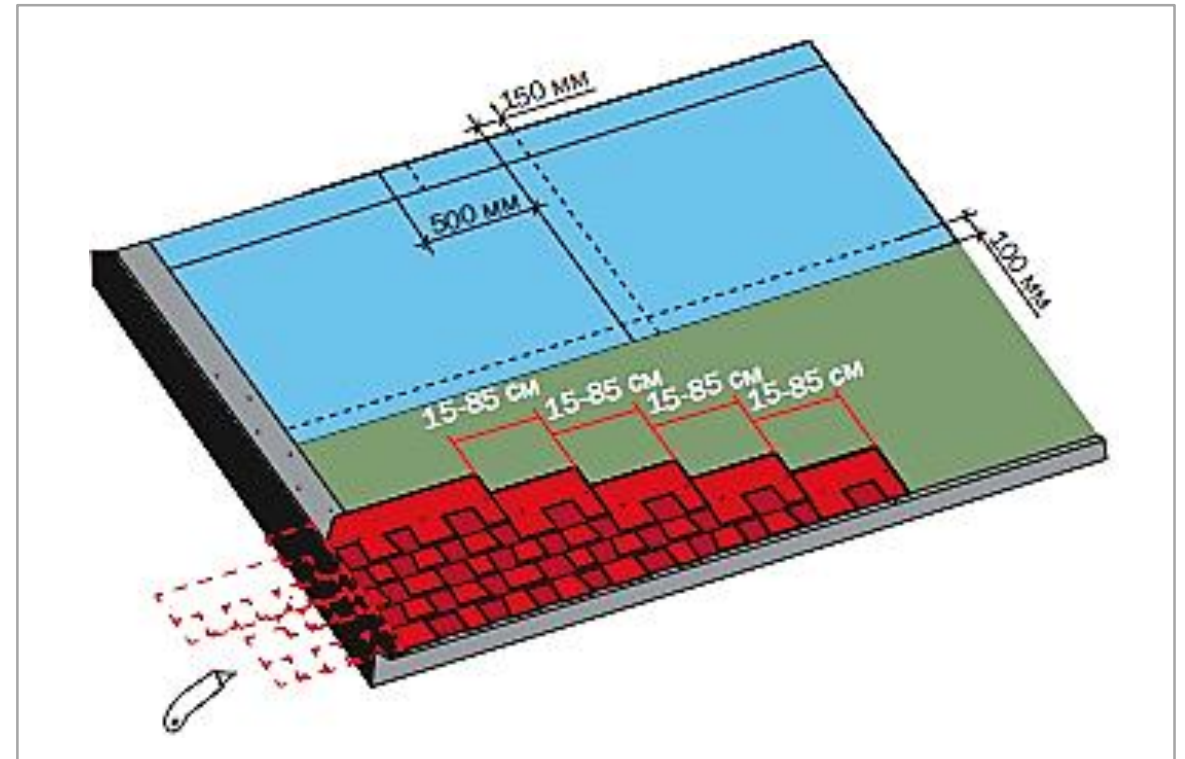
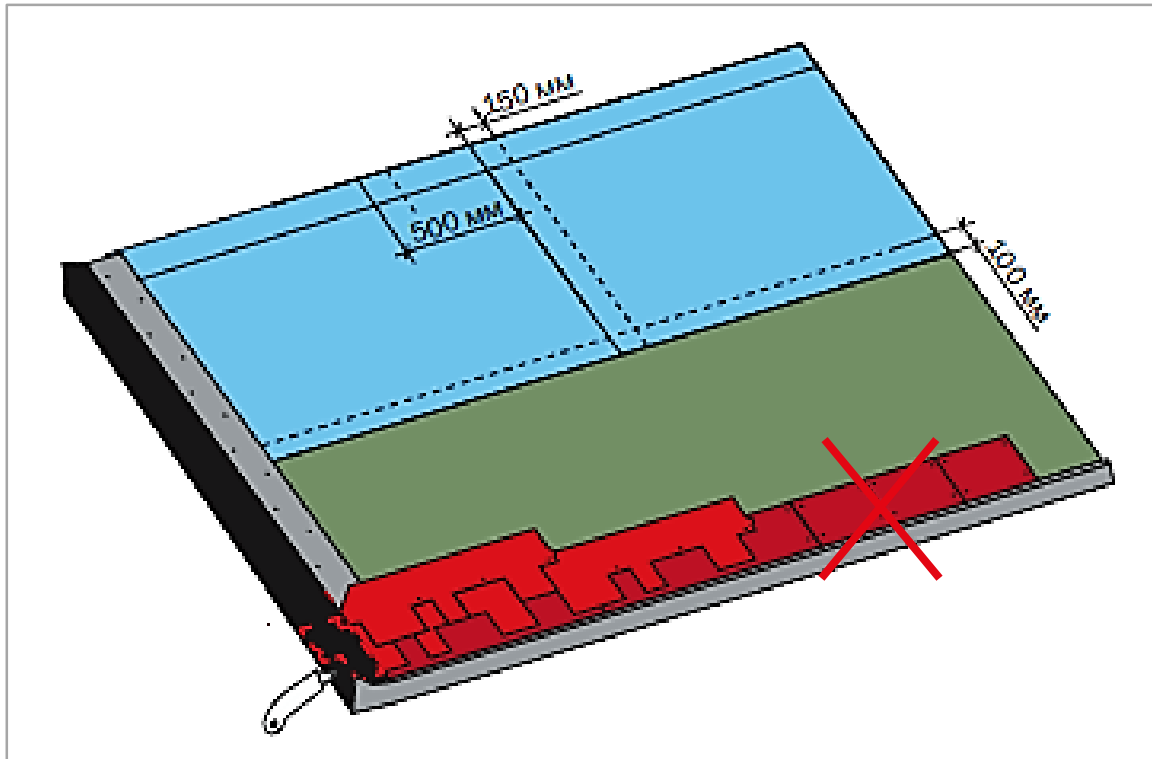
4 Do not require removal of the film

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



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

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



The COUNTRY AR 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. Copper-containing color granules prevent algae growth on the roof for more than 10 years.

50
YEARS

MANUFACTURER'S
WARRANTY



Louisiana



Alaska



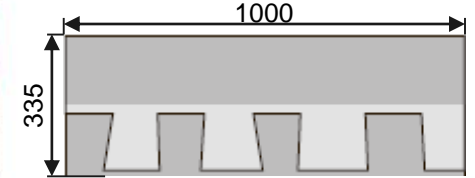
Vermont



Kansas



Montana



Texas



Alabama



Michigan



Atlanta



Indiana



Nevada



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.

50
YEARS

MANUFACTURER'S
WARRANTY



Indigo



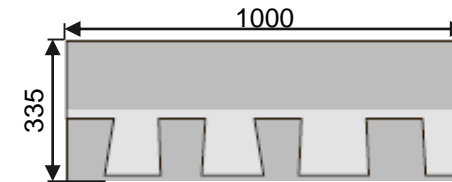
Corrida



Barcelona



Castile



Seville



Alicante



Toscana



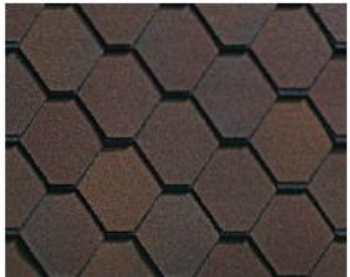
Sicily



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. The WESTERN collection is an inimitable range of colors and excellent performance.



MANUFACTURER'S
WARRANTY



Canyon



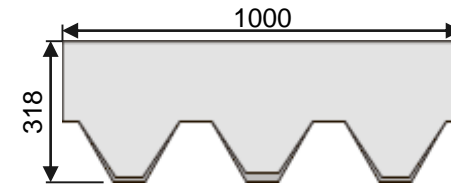
Klondike



Niagara

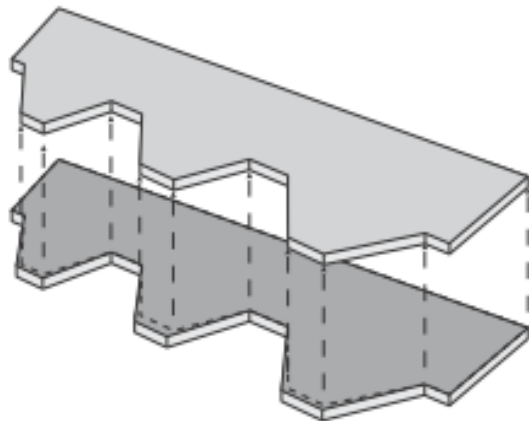


Prairie





4 layers!!!



Self-adhesive strip for high wind resistance







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



Asia



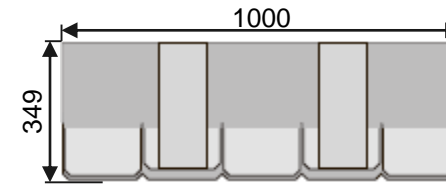
America



Africa



Europe

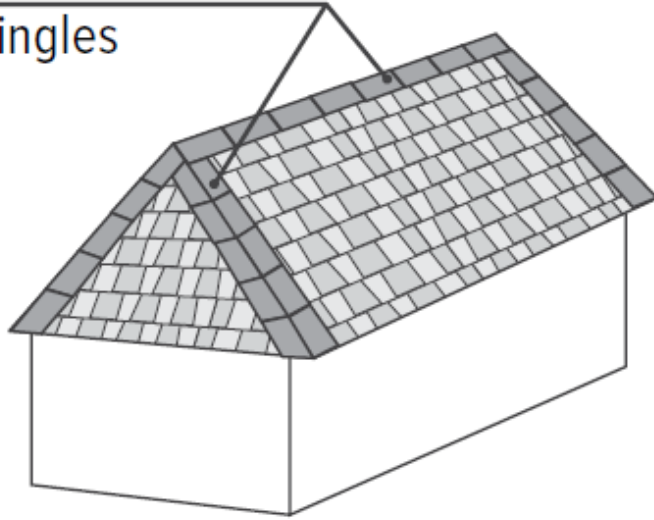




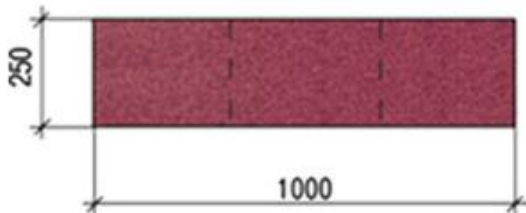


HIP & RIDGE & STARTER SHINGLES

Hip & ridge
shingles



TOP SURFACE



REVERSE



Made of SBS modified bitumen



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 x 0.25 m.

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



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



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.

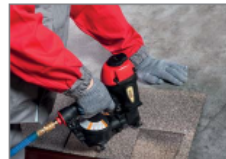
NOTE! DO NOT REMOVE the anti-adhesive film with the «Do Not Remove» message on it from the «castle» shaped shingles.



If course shingles are cut to a certain pattern or if course shingles are used as a starter strip, cover the rear side with TECHNICONICOL 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.

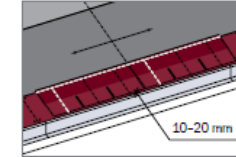
INSTALLATION OF ROOFING SHINGLES

58

STARTER STRIP FIXATION

7.4. Fixation of the first and following rows of shingles

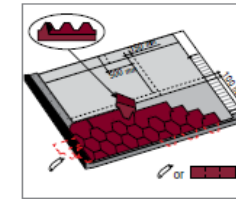
It is recommended to place the first row on long slopes from the slope center to ensure the convenience of horizontal levelling.



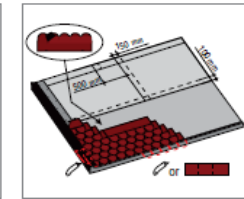
The first row is laid with a step-out of 10–20 mm from the starter strip.

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

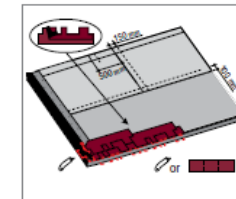
The installation shall be performed in diagonal strips.



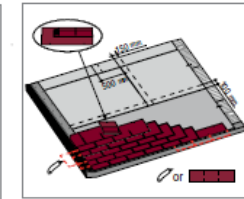
“sonata” cutting pattern



“beaver tail” or cutting pattern



“accord” cutting pattern



“trio”, “quattro” cutting pattern

INSTALLATION OF ROOFING SHINGLES

59

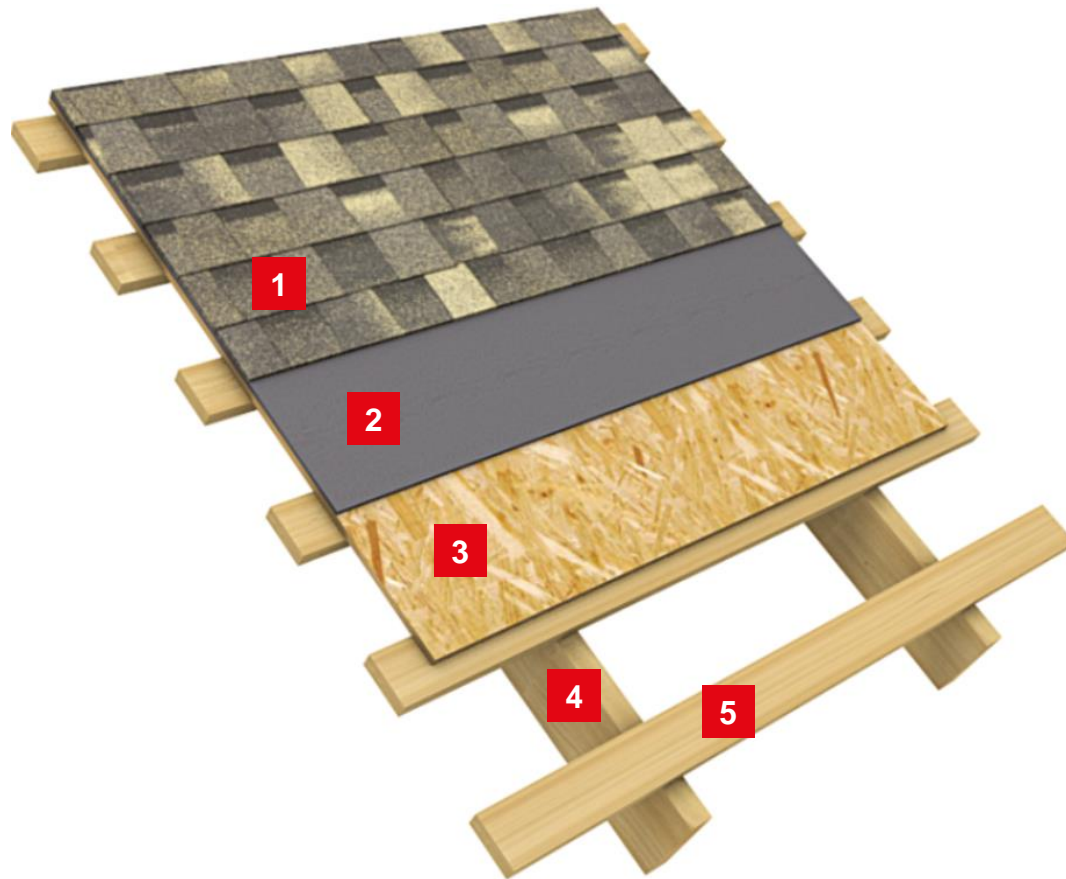
FIXATION OF THE FIRST AND FOLLOWING ROWS OF SHINGLES

System without thermal insulation (torching method):



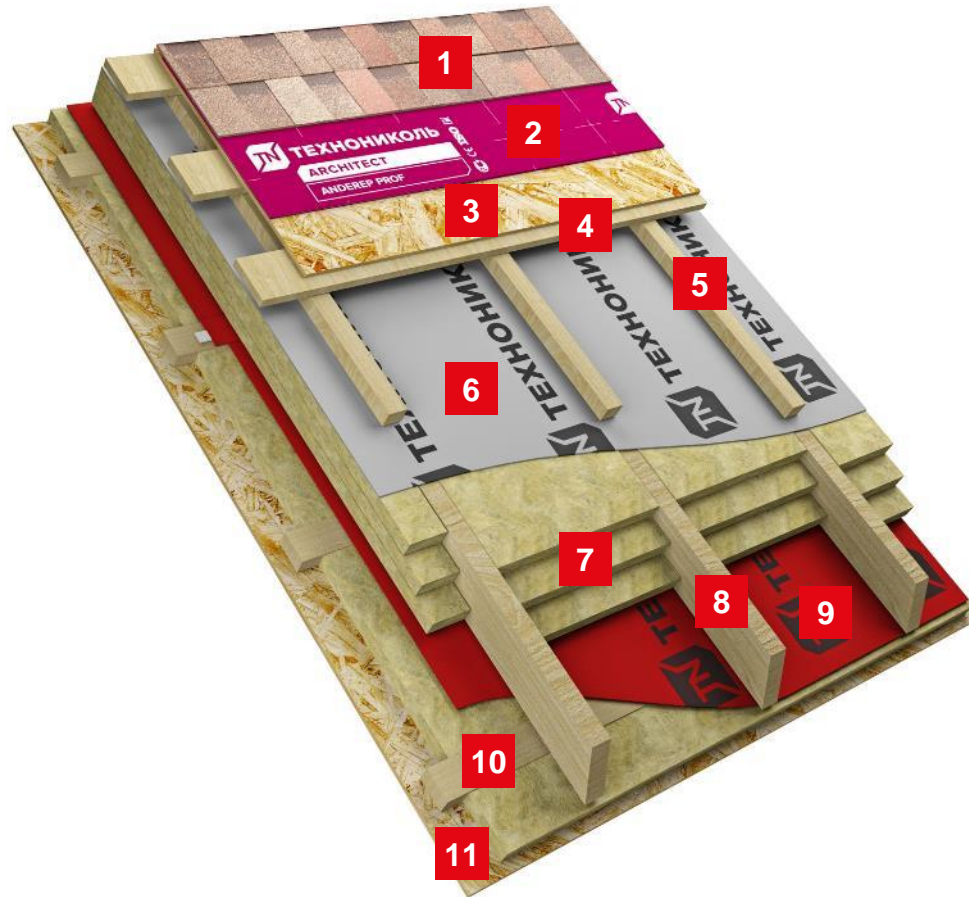
1. Roofing shingles by TECHNOMICOL
2. Underlay bitumen membrane
ULTRAPLAST B
3. BITUMEN PRIME COATING
(PRIMER TECHNOMICOL No.01)
4. Roof decking (non-flammable)

System without thermal insulation (nailing method):



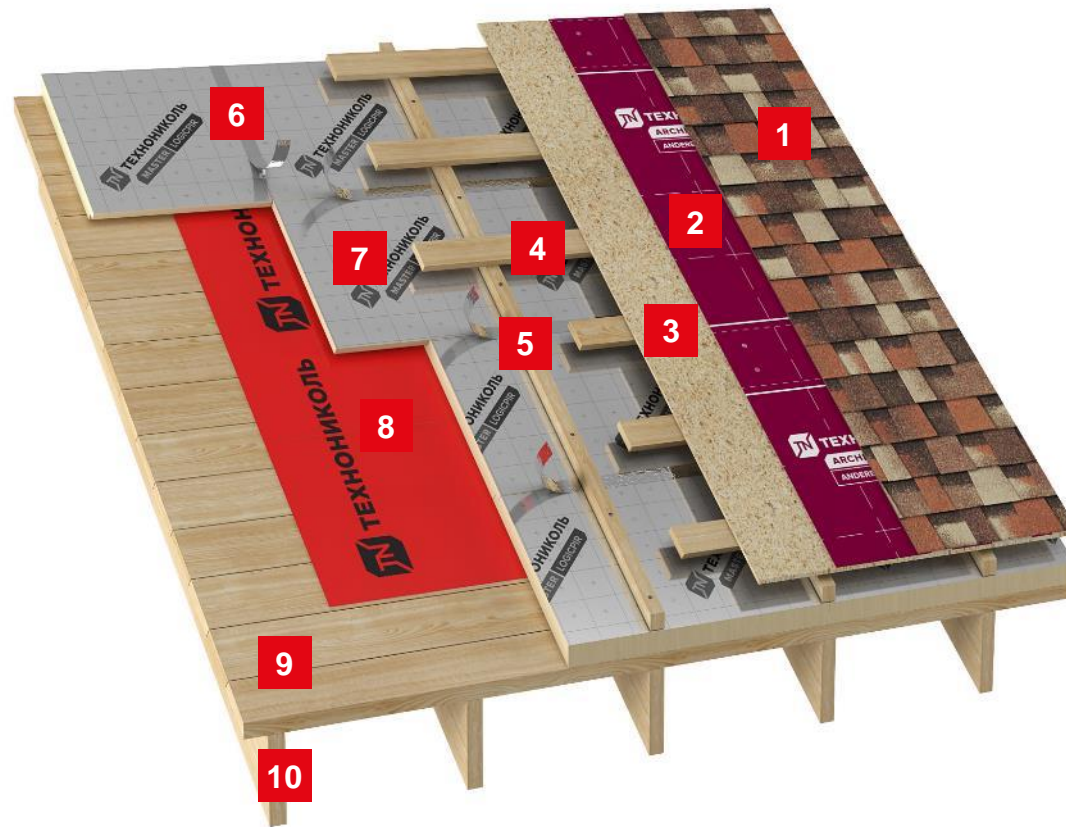
1. Roofing shingles by TECHNOMICOL
2. Underlay bitumen membrane ULTRAFLEX SA (self-adhesive)
3. Wood decking (OSB-3, plywood, tongue or groove planks)
4. Rafter
5. Counter battens

System with thermal insulation of stone wool (nailing method):



1. Roofing shingles by TECHNOMICOL
2. Underlay bitumen membrane
3. Wood decking (OSB-3, plywood, tongue or groove planks)
4. Counter battens
5. Ventilation space battens
6. TECHNOMICOL superdiffusion membrane
7. TECHNOMICOL stone wool slabs
8. Rafter system
9. TECHNOMICOL vapor barrier film
10. Counter battens
11. Attic ceiling

System with thermal insulation of PIR boards (nailing method):



1. Roofing shingles by TECHNOMICOL
2. Underlay bitumen membrane
3. Wood decking (OSB-3, plywood, tongue or groove planks)
4. Counter battens
5. Ventilation space battens
6. NICOBAND self-adhesive sealant tape
7. LOGICPIR thermal insulation boards
8. TECHNOMICOL vapor barrier film
9. Wooden boarding
10. Rafter system

VALLEY ROLL MATERIAL



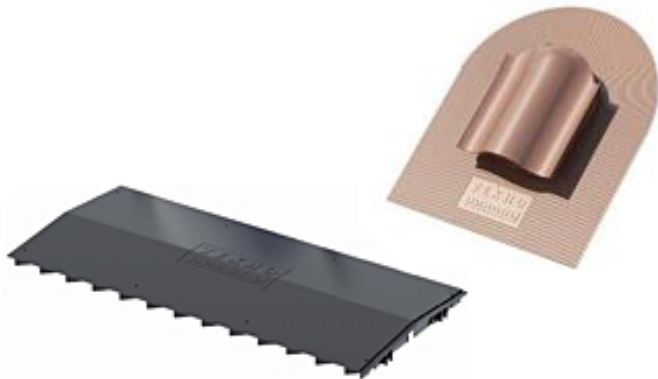
UNDERLAY MEMBRANES



ADHESIVE MASTIC FIXER



VENTILATION COMPONENTS



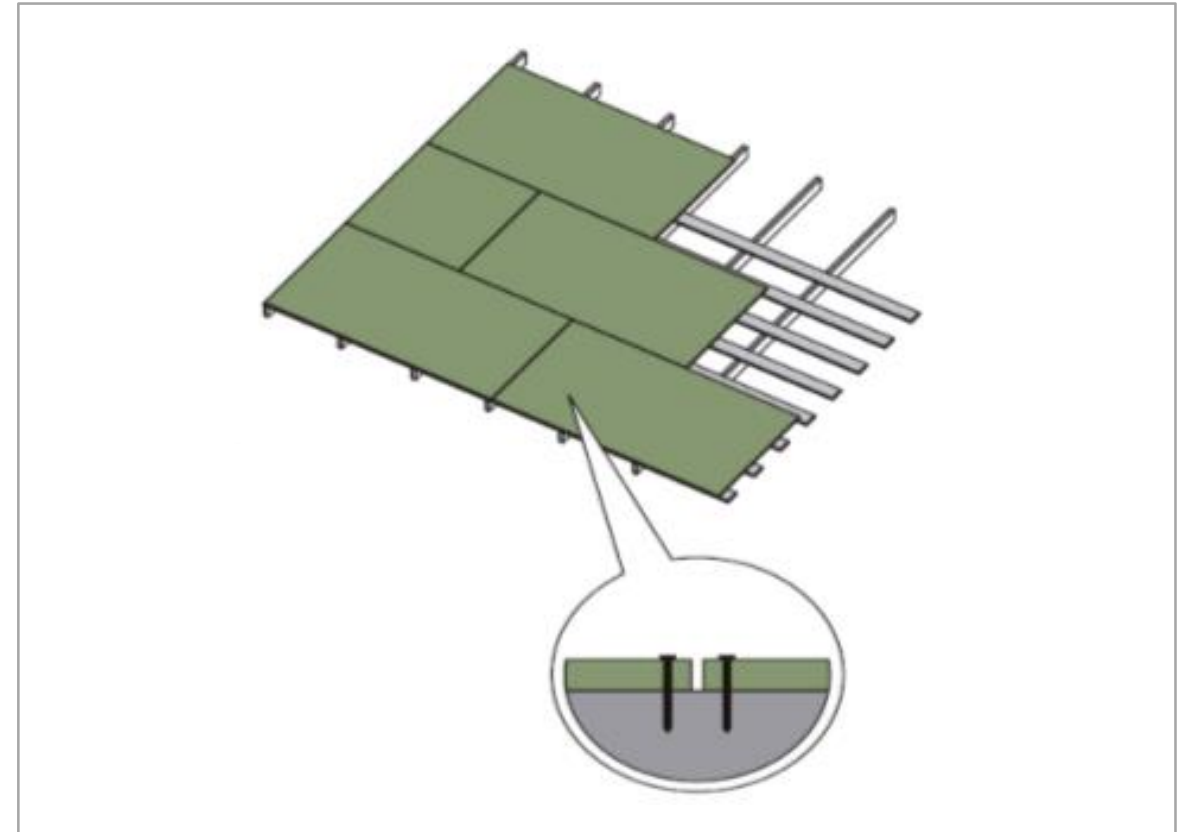
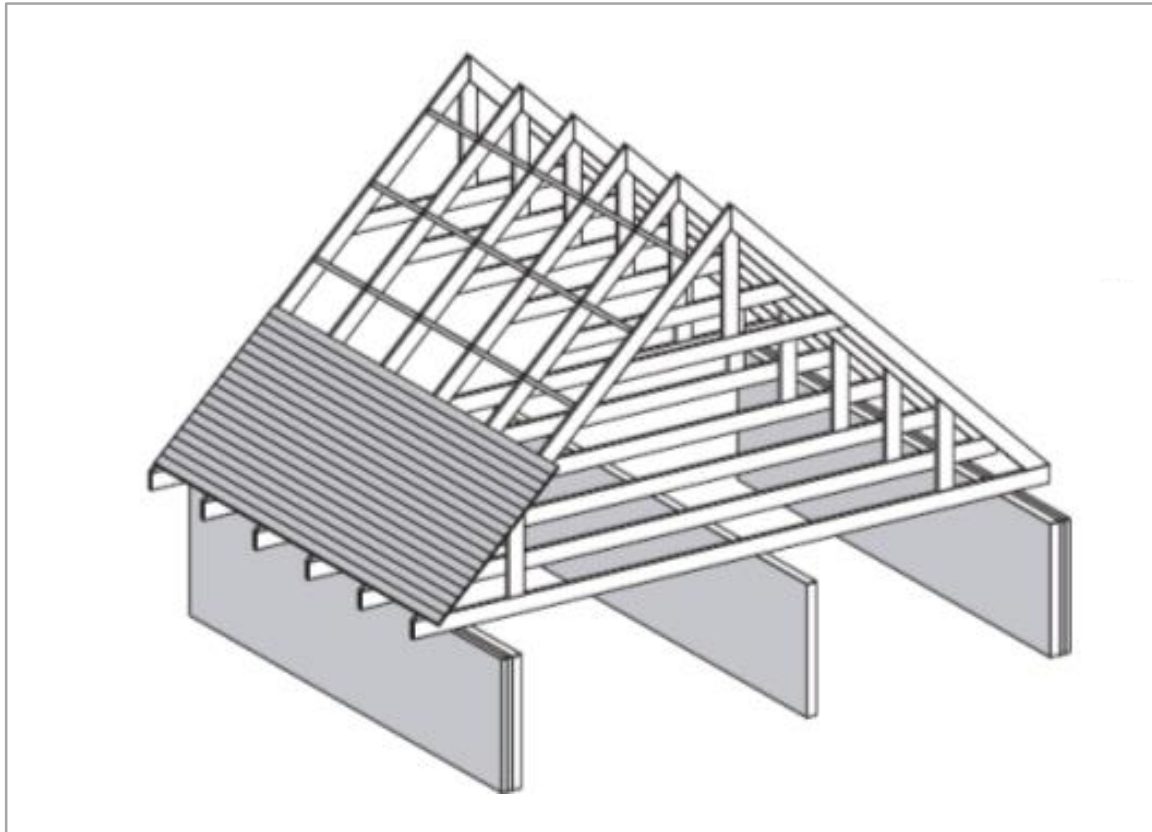
METAL FLASHINGS



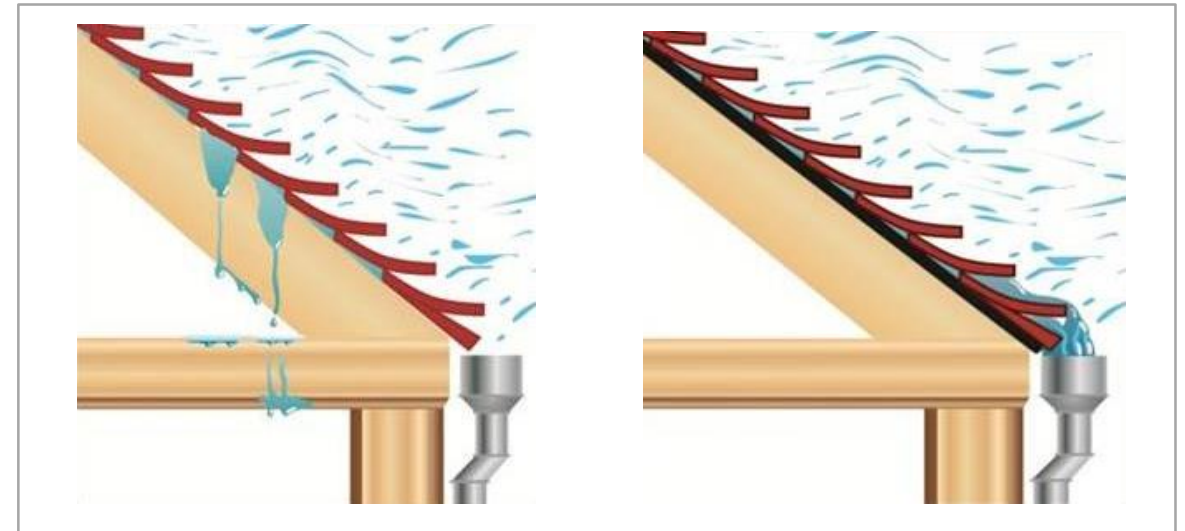
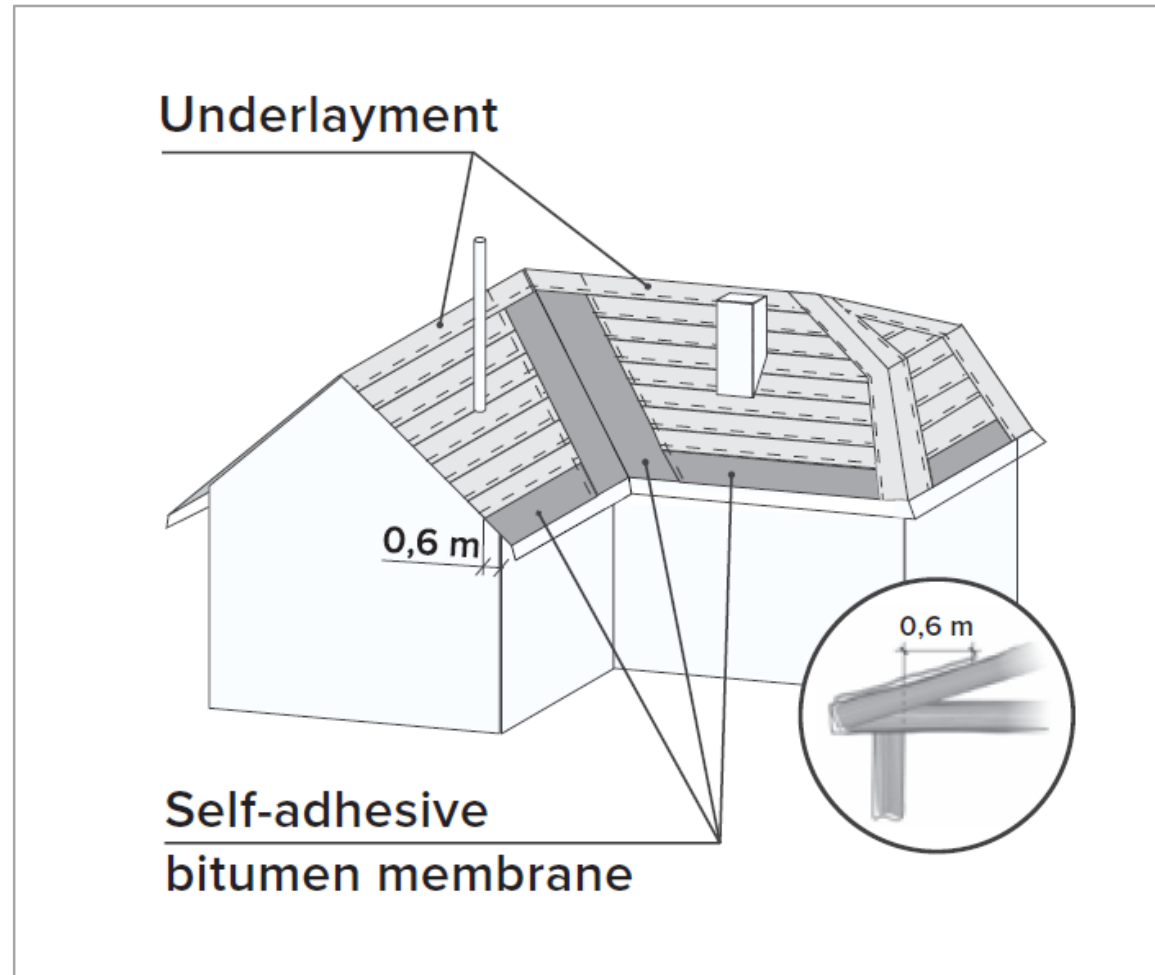
ROOFING NAILS



- 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



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



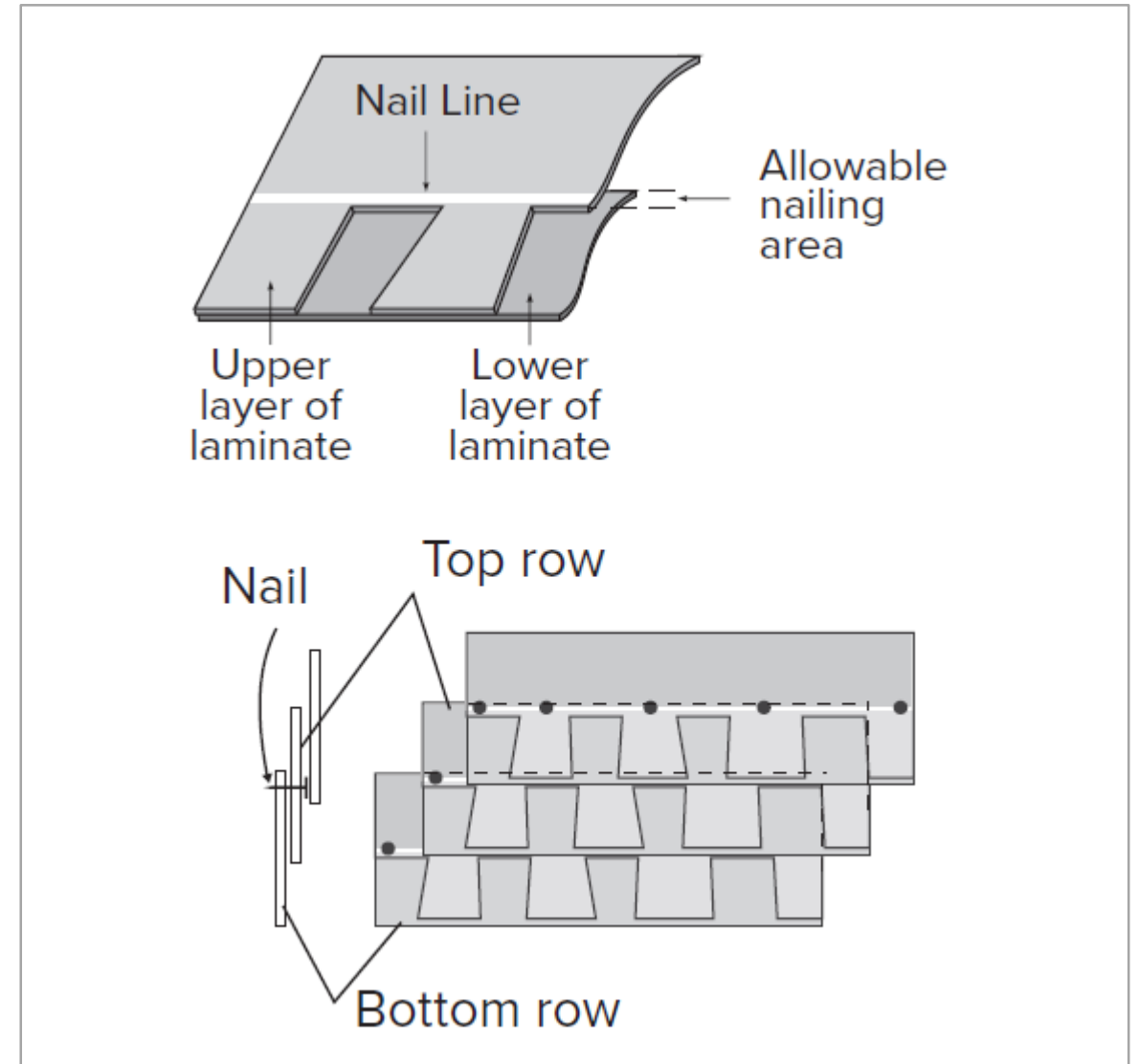
MIXING OF ROOFING SHINGLES

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.



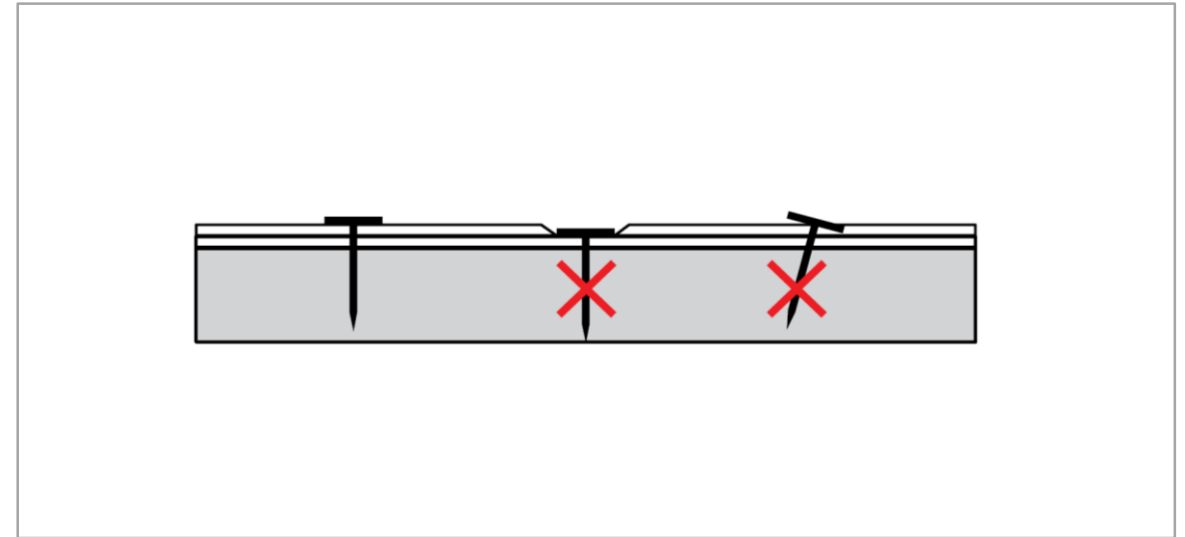
Place roofing nails exactly at printed nail line to ensure you fasten through a shingle double layer area. The manufacturer applies the special guide line to the front surface of multilayer shingles for reference.

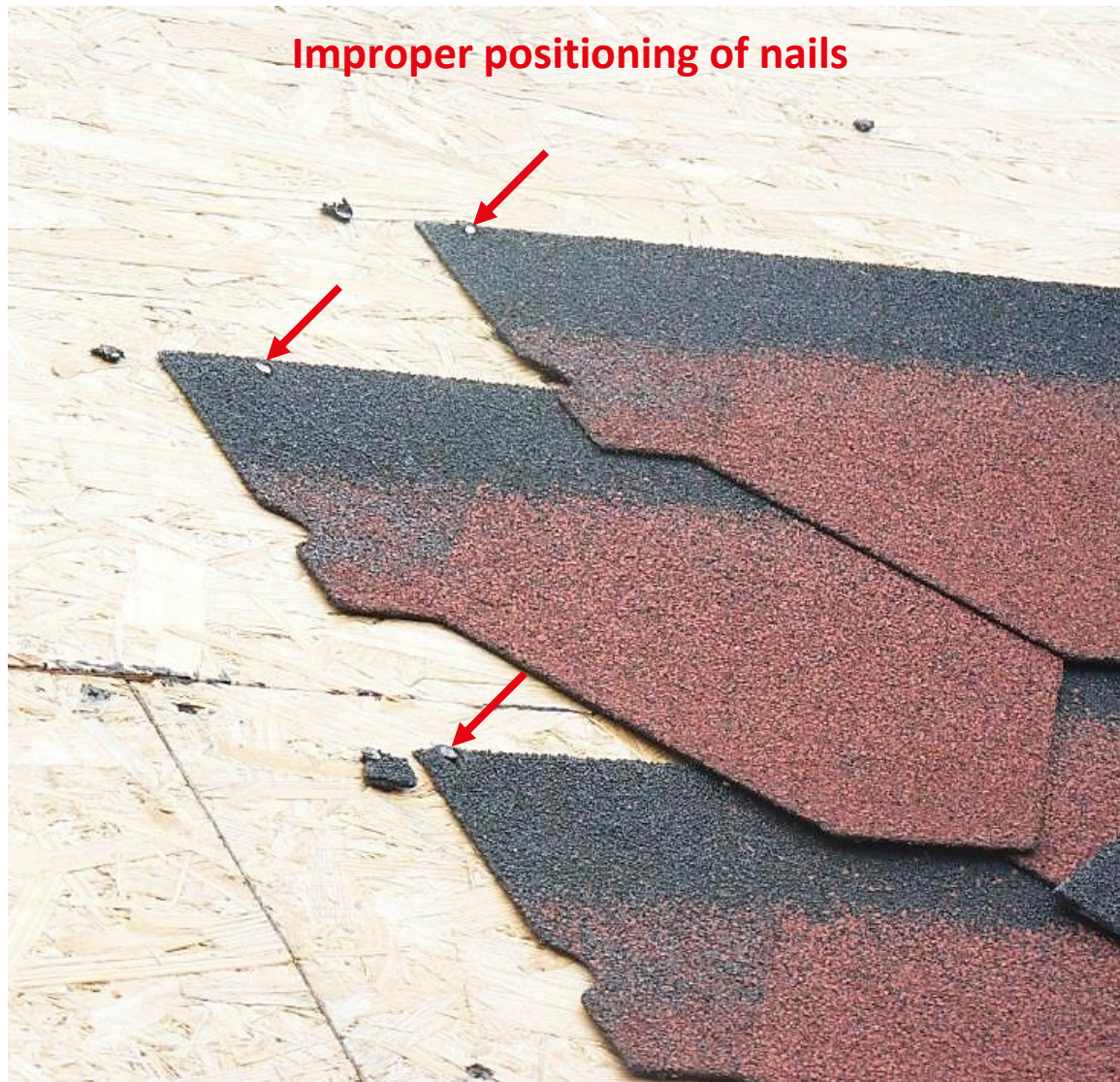
Triple-layer CONTINENT and ATLANTIC cutting patterns require nails of at least 45 mm long.



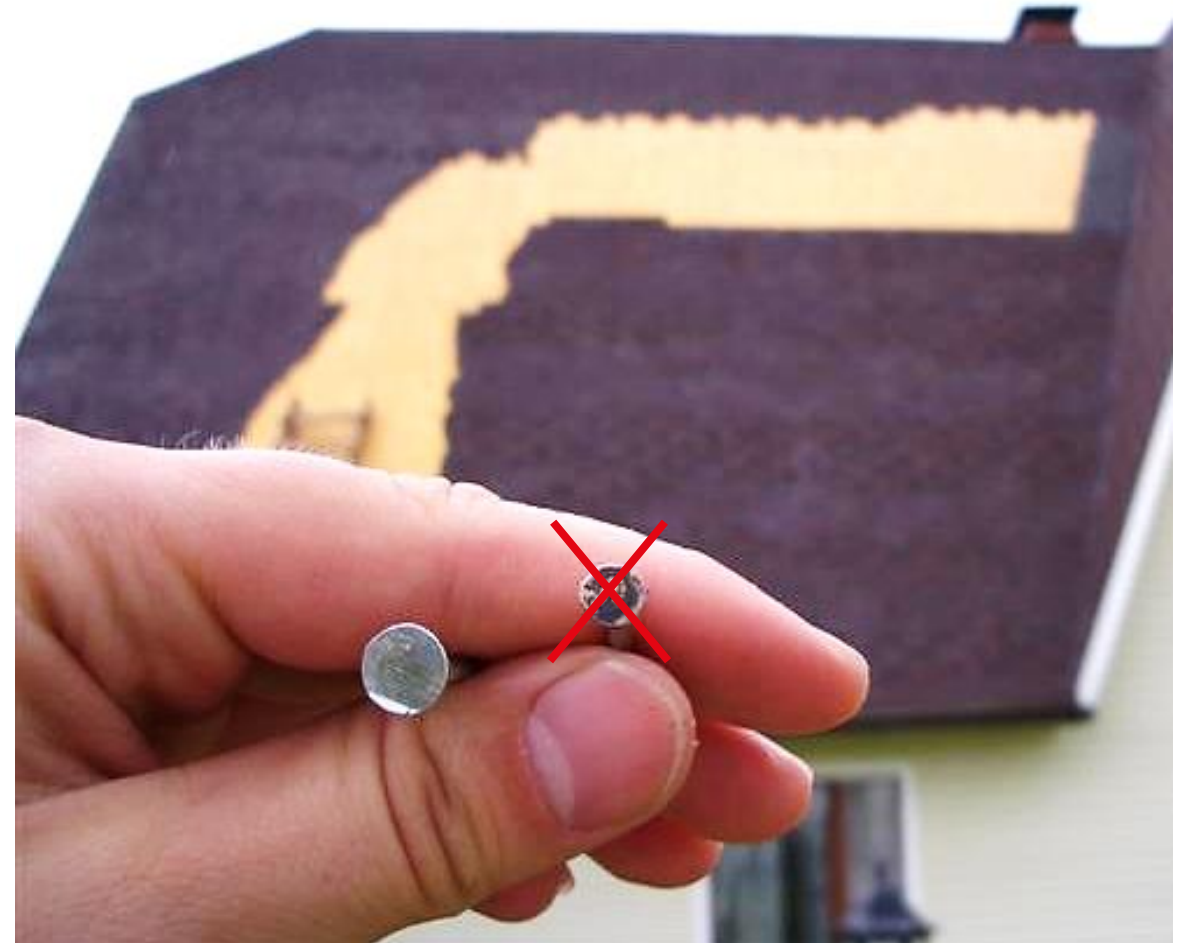
Each shingle is fixed to the roof base using special galvanized roofing nails with wide heads in the amount depending on the slope angle. TECHNOMICOL roofing nails are available in 2 sizes: 30x3.5 mm and 45x3.5 mm, nail head diameter is 9 mm.

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.





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





TECHNONICOL FIXER mastic is a multicomponent compound intended for glueing of valley roll material and starter strip made of regular shingles of COUNTRY and JAZZ collections to the roof base, as well as for sealing of roofing shingles joints, penetrations, underlayment overlaps and connections to fronton areas, chimneys and walls.

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



VALLEY ROLL MATERIAL BY TECHNONICOL

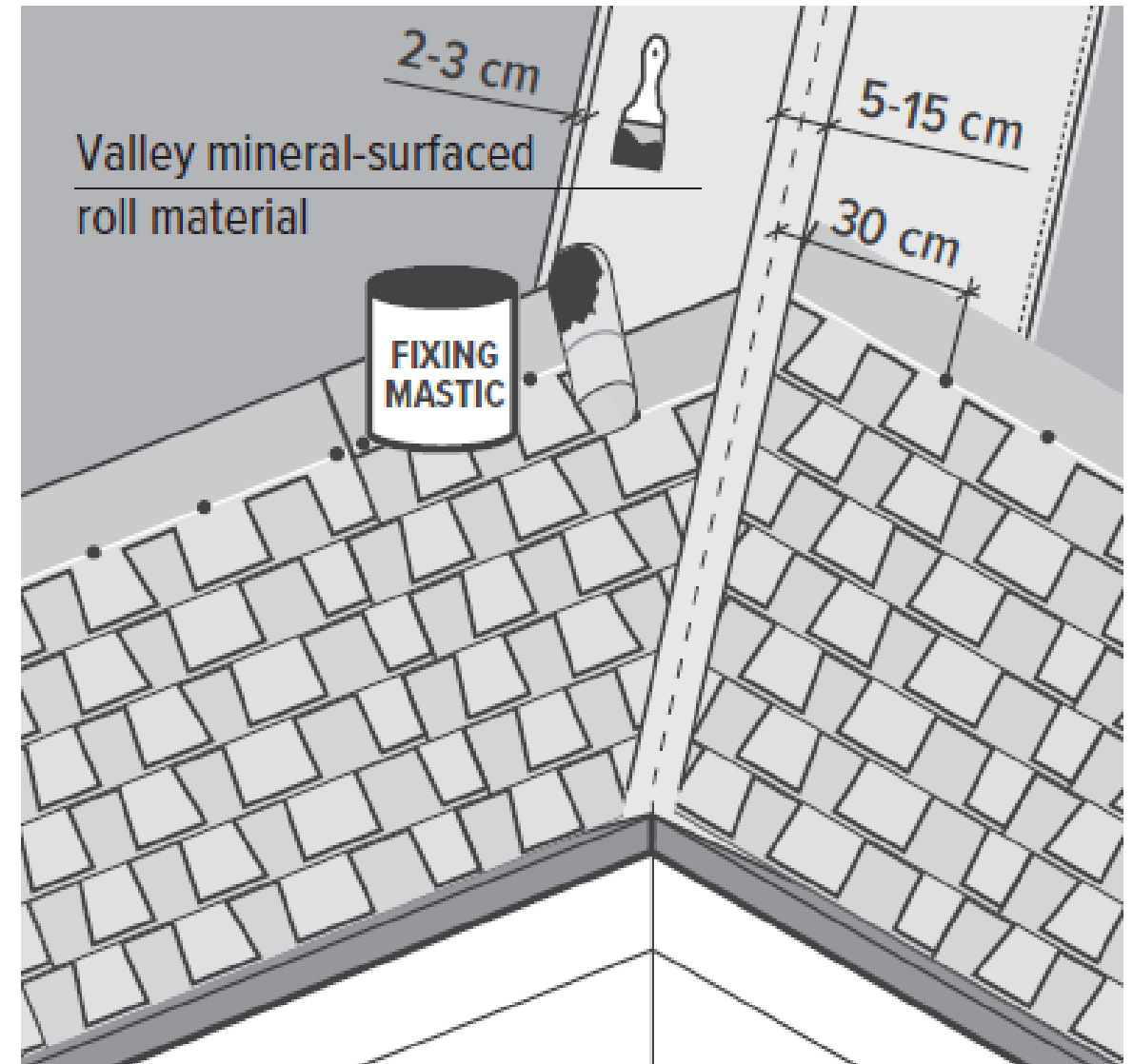
Used as additional waterproofing underlayment in open roof valleys that are prone to leakages under snow and rain loads, and thus require extra protection. This material is also good to seal joints between roofing and chimneys or vertical walls.

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



“OPEN VALLEY” METHOD

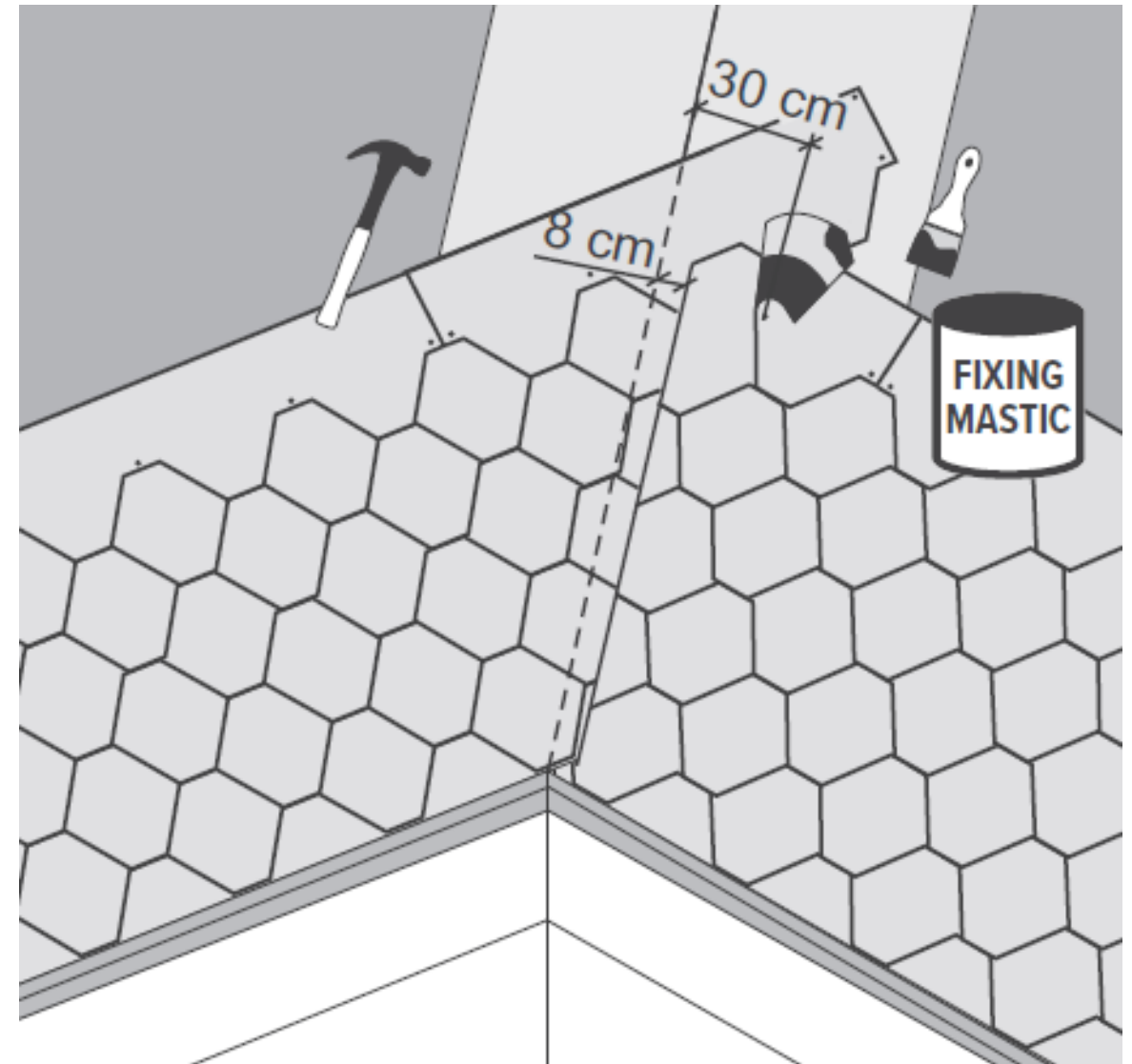
The width of the gutter depends on building or facility location. If the construction site is located near the trees, the gutter width must be increased up to 15 cm maximum to ensure free removal of leaves.



“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.

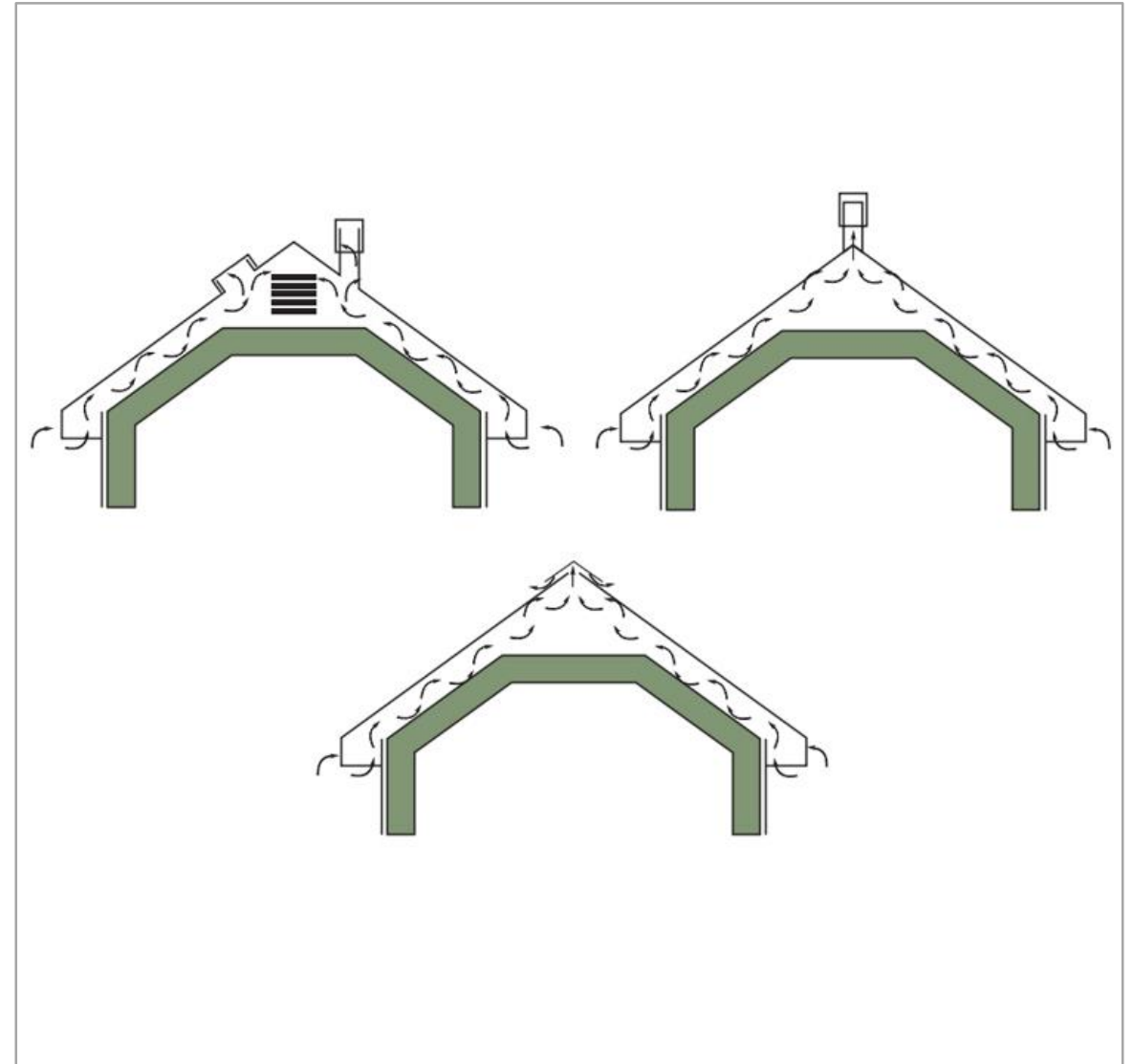
The FIXER mastic must be applied not only to shingles of a low pitched slope but to the underlying shingle from a steeper slope as well to ensure more reliable insulation.



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.

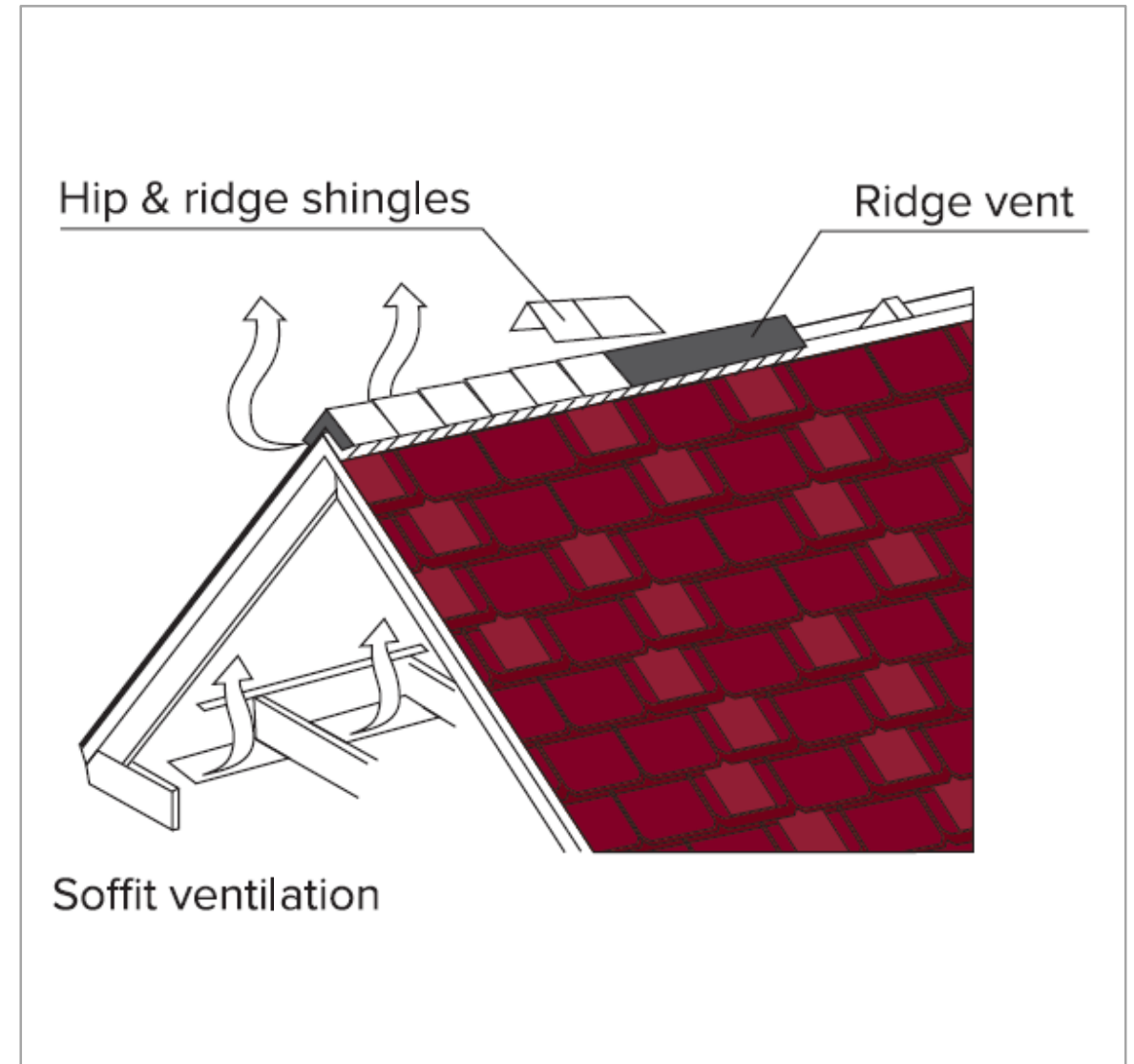
In the absence of a well-functioning ventilation system, the following problems may occur:

- 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



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%.



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

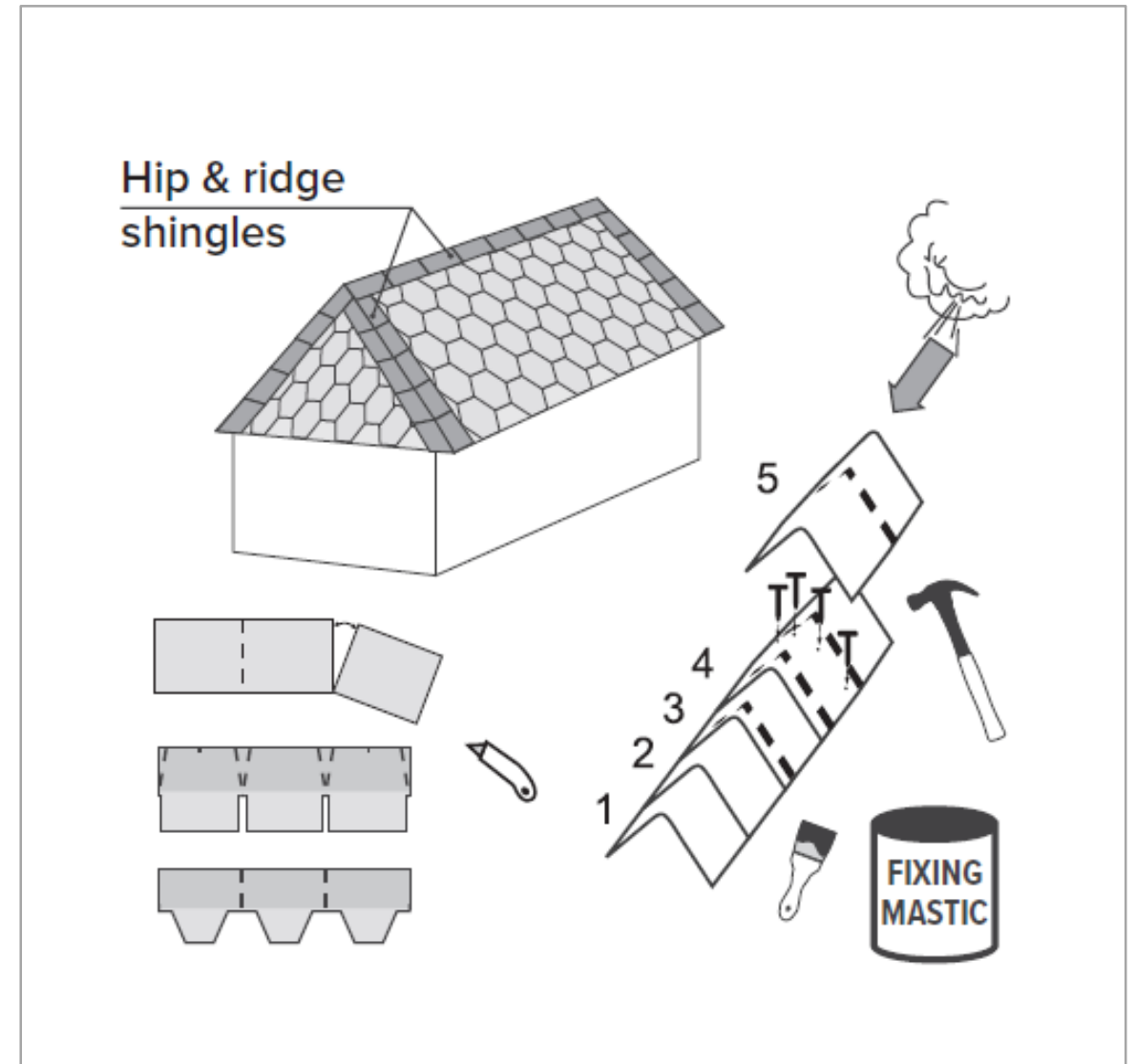
TECHNONICOL provides the whole range of components that are required for the arrangement of the ventilation system.



RIDGE ARRANGEMENT

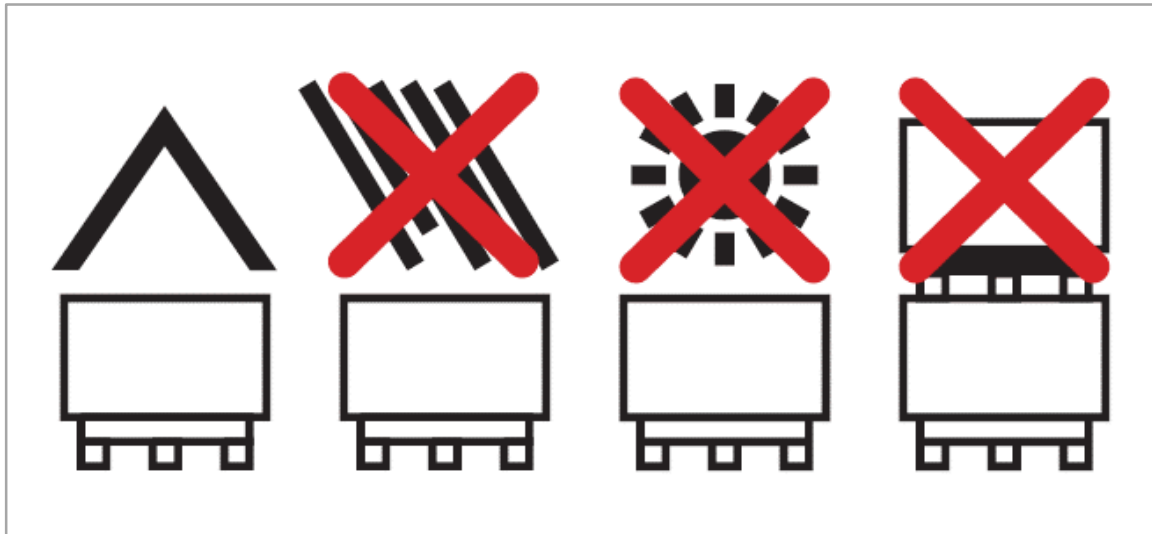
The ridge shall be laid from the side opposite to prevailing winds in this area.

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.



TRANSPORTATION AND STORAGE

- 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



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



MARKETING

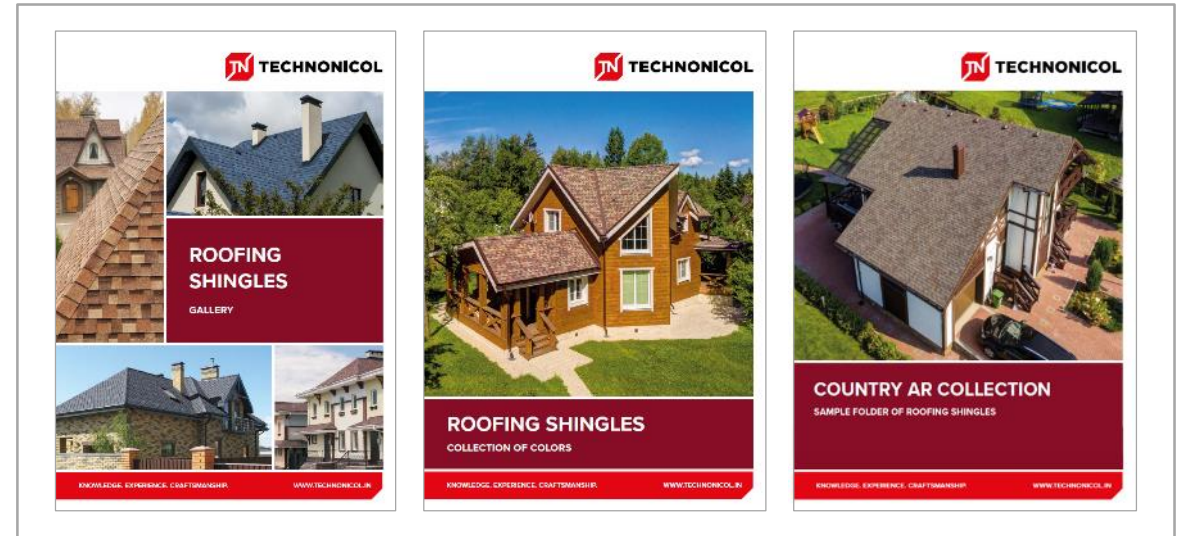
EXAMPLES OF OUTDOOR PROMOTION



EXAMPLES OF INDOOR PROMOTION







THANK YOU FOR ATTENTION!

TECHNONICOL India Private Limited

+91 22 2872 8691

info@technonicol.in

WWW.TECHNONICOL.IN