



**TECHNONICOL**

KNOWLEDGE. EXPERIENCE. CRAFTSMANSHIP.

# ROOFING SHINGLES BY TECHNOMICOL

THE SMARTEST SOLUTION FOR YOUR PITCHED ROOF

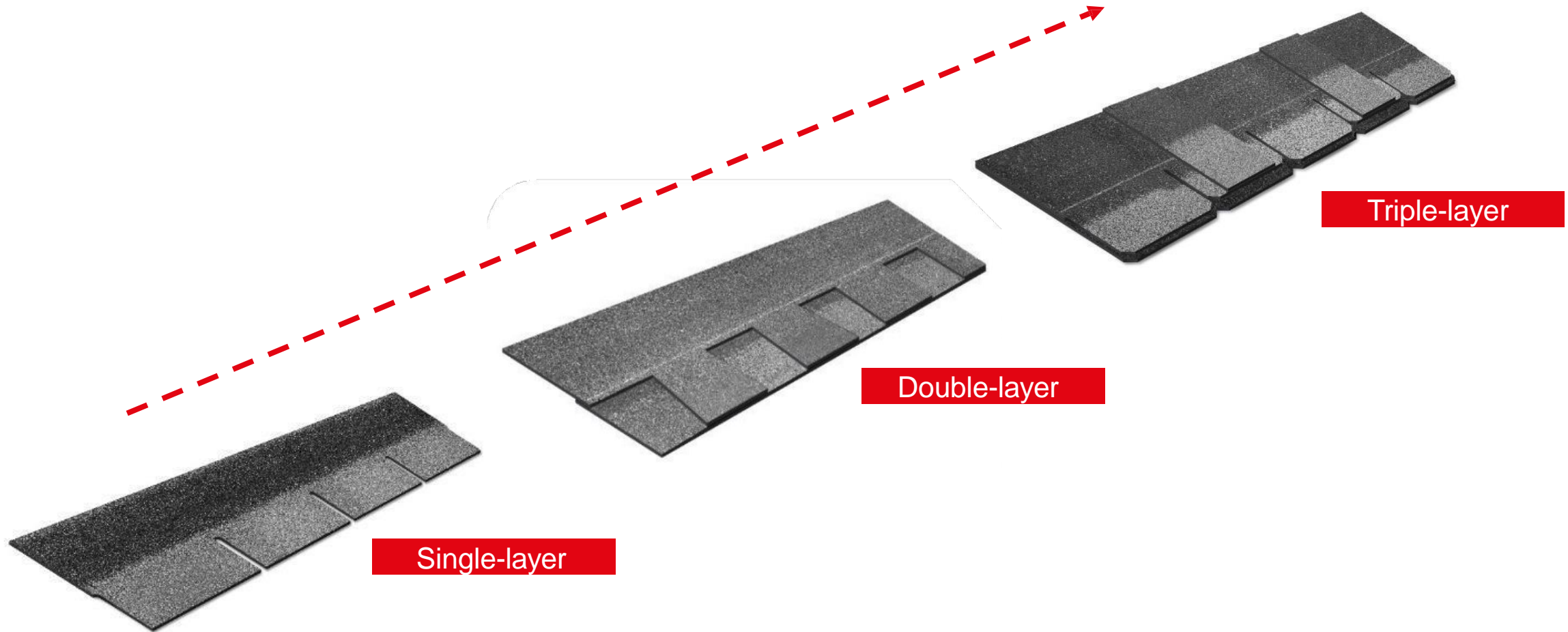
# ROOFING SHINGLES

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.

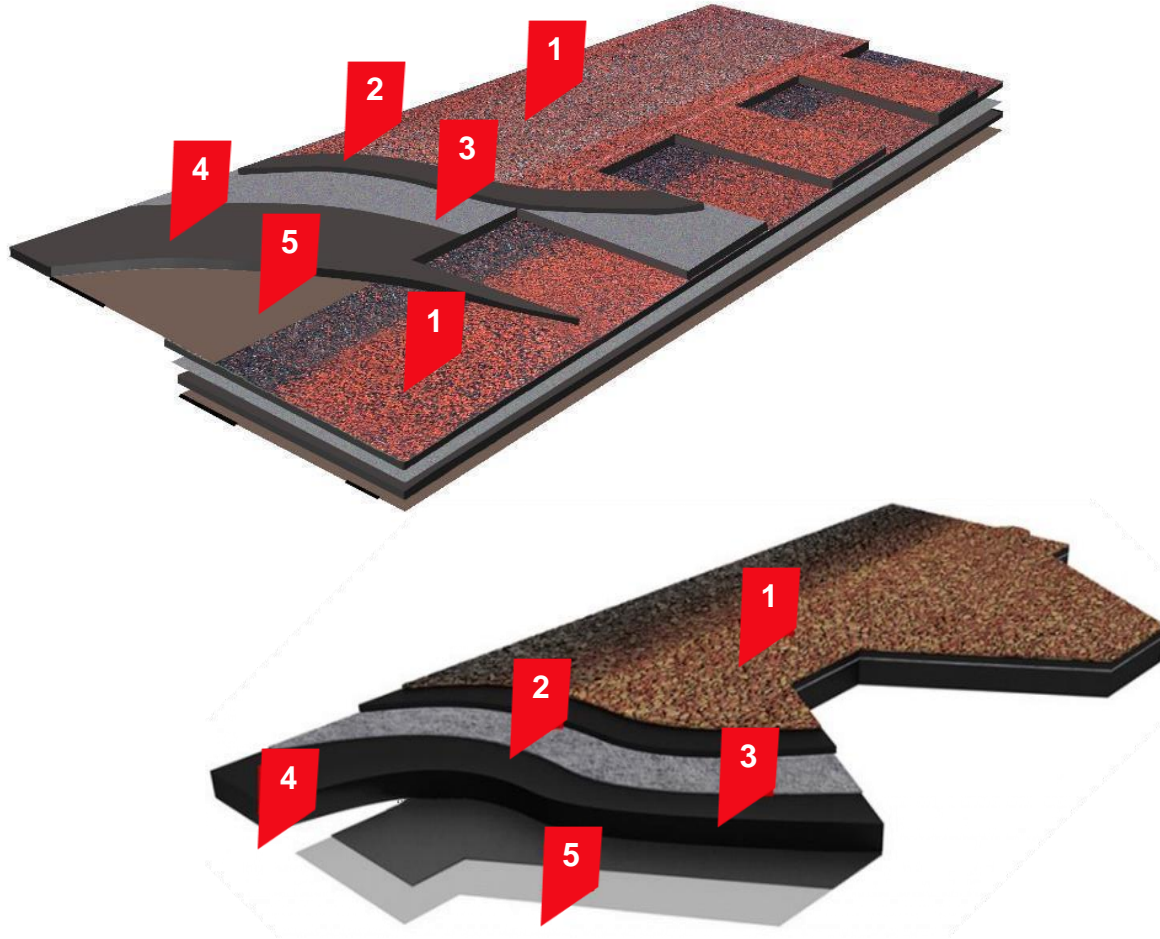
Bitumen shingles do not fade; they are resistant to harmful environmental impacts, decay, corrosion, fire damage, and, what is very important, they perform well in extreme temperatures.



# TYPES OF ROOFING SHINGLES



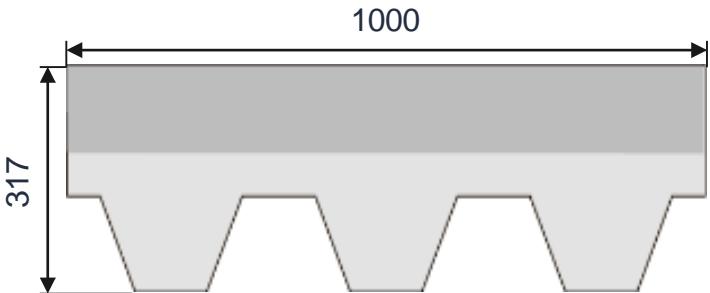
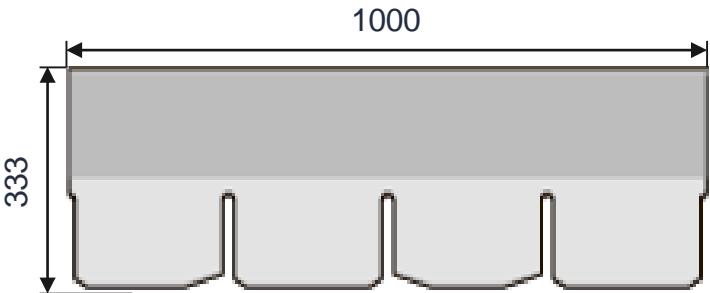
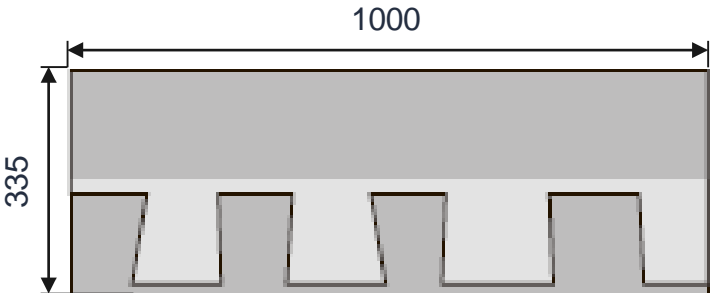
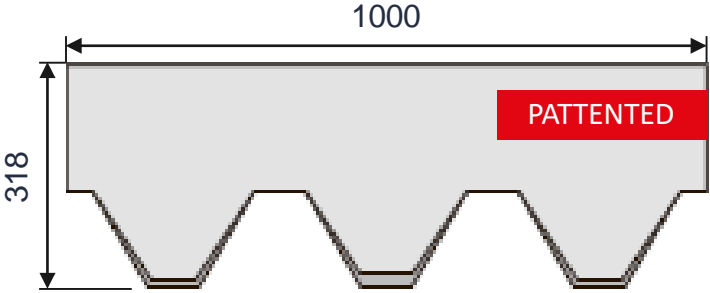
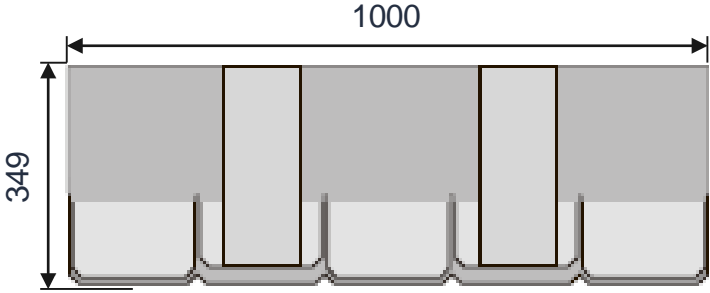
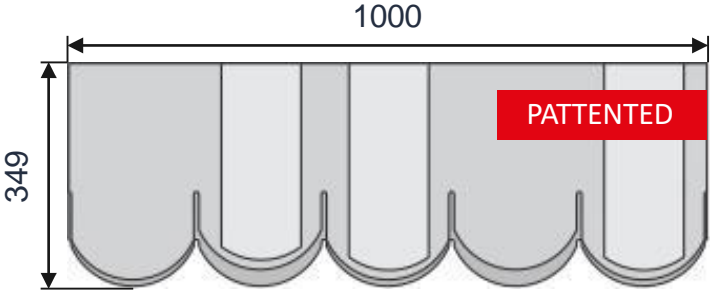
# ROOFING SHINGLES STRUCTURE



## Roofing shingles structure

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

# CUTTING PATTERNS



# 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:

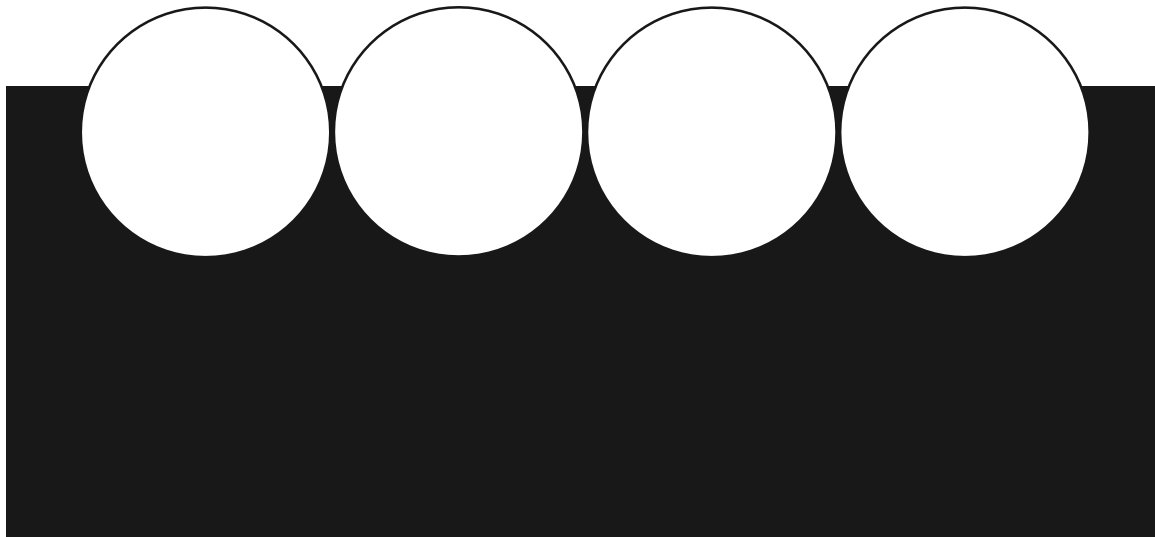
- MIDA plant, Lithuania, 2002
- Shinglas plant, Ryazan, 2005
- Shinglas plant 2, Ryazan, 2013



# 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	FAZENDA	CLASSIC		HIP & RIDGE
						QUADRILLE	MODERN	
Warranty, years	60	55	60	50	25	30	30	-
Base per layer, g/m <sup>2</sup>	110	110	90	90	80	110	110	100
Thickness per layer, mm	3.2±0.2	3.0±0.2	3.0±0.2	2.7±0.2	2.5±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	27.3	24.3	31.5	27.5
Weight per sqm, kg/m <sup>2</sup>	25.4	17.6	13.5	12.0	10.5	8.1	10.5	5.5
Coverage per bundle, m <sup>2</sup>	1.5	1.5	2.0	2.6	2.6	3.0	3.0	5.0
Quantity on the pallet, m <sup>2</sup>	45.0	54.0	84.0	93.6	117	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/m<sup>2</sup> (COUNTRY collection) compared with 40 kg/m<sup>2</sup> weight of ceramic tiles. It results in the lower load and greater safety.



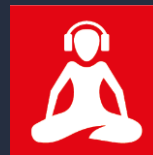
## All-weather

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!



# **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



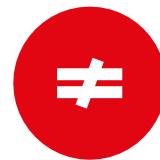
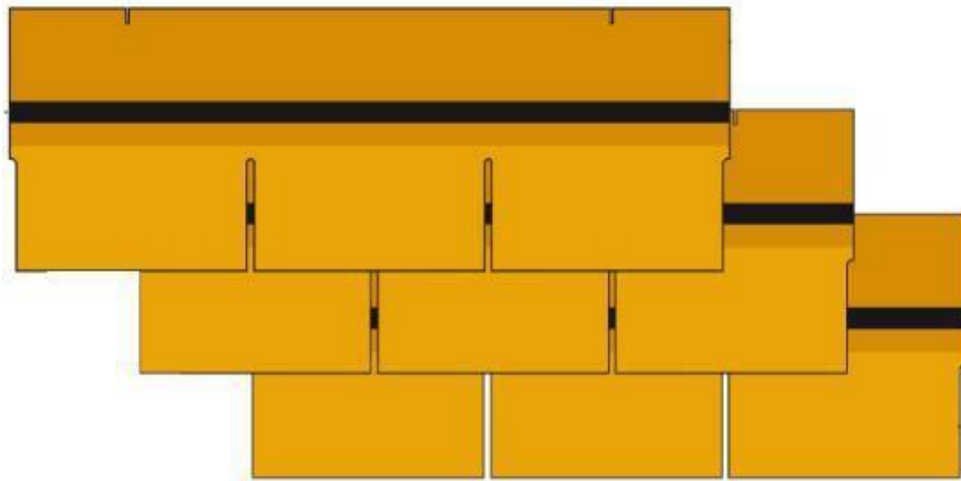
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# ADVANTAGES OF MULTILAYER ROOFING SHINGLES

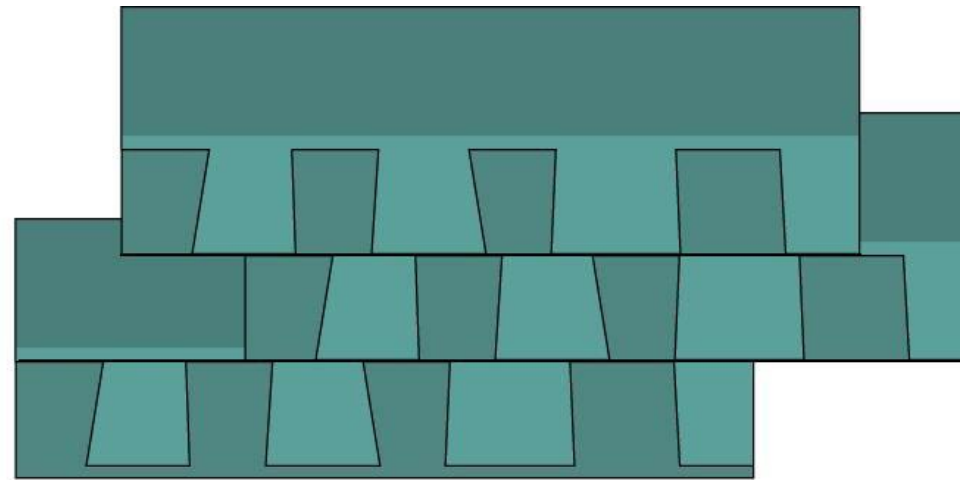
## 2 No need to align the pattern between the shingles

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

Single-layer roofing shingles



Multilayer roofing shingles

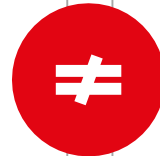
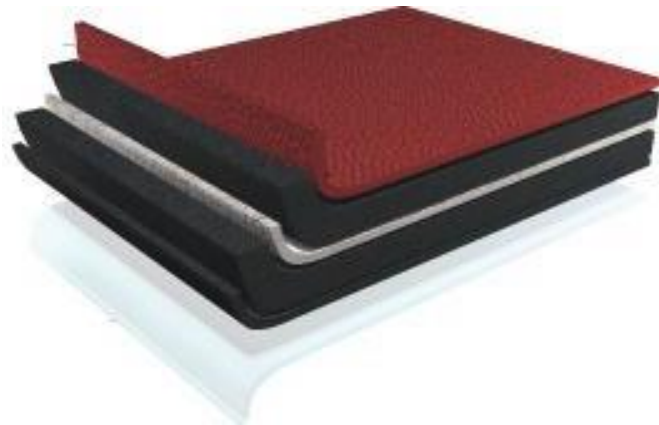


# ADVANTAGES OF MULTILAYER ROOFING SHINGLES

## 3 Incredible strength

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

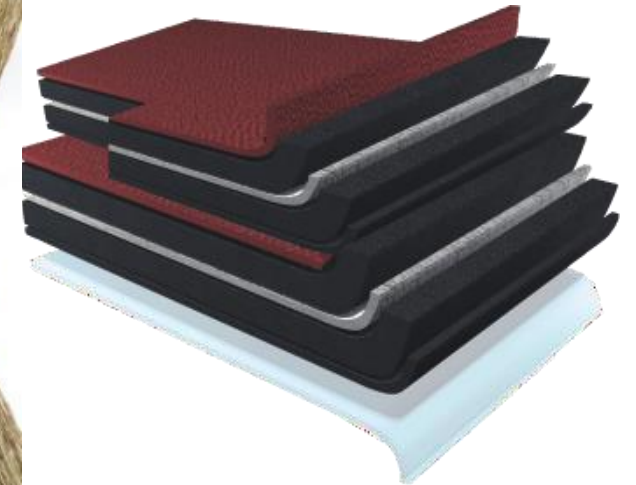
Single-layer roofing shingles



Multilayer roofing shingles



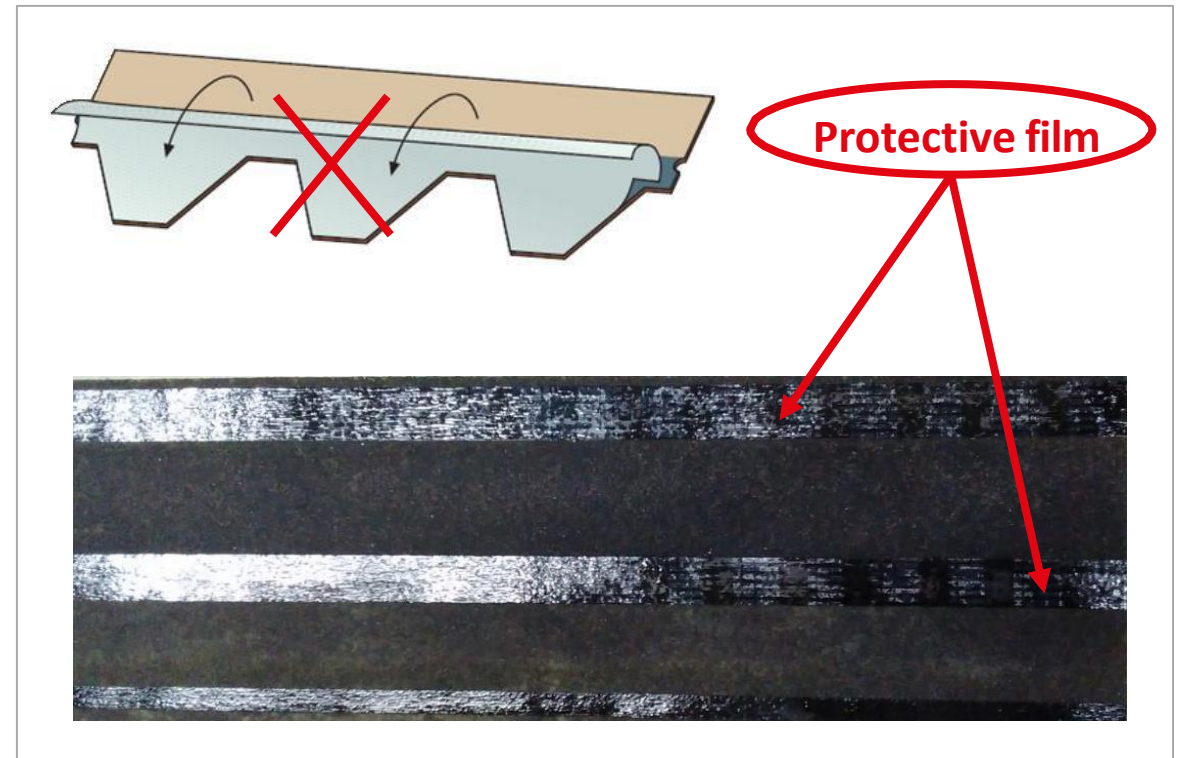
2 layers!



# ADVANTAGES OF MULTILAYER ROOFING SHINGLES

## 4 Do not require removal of the film

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

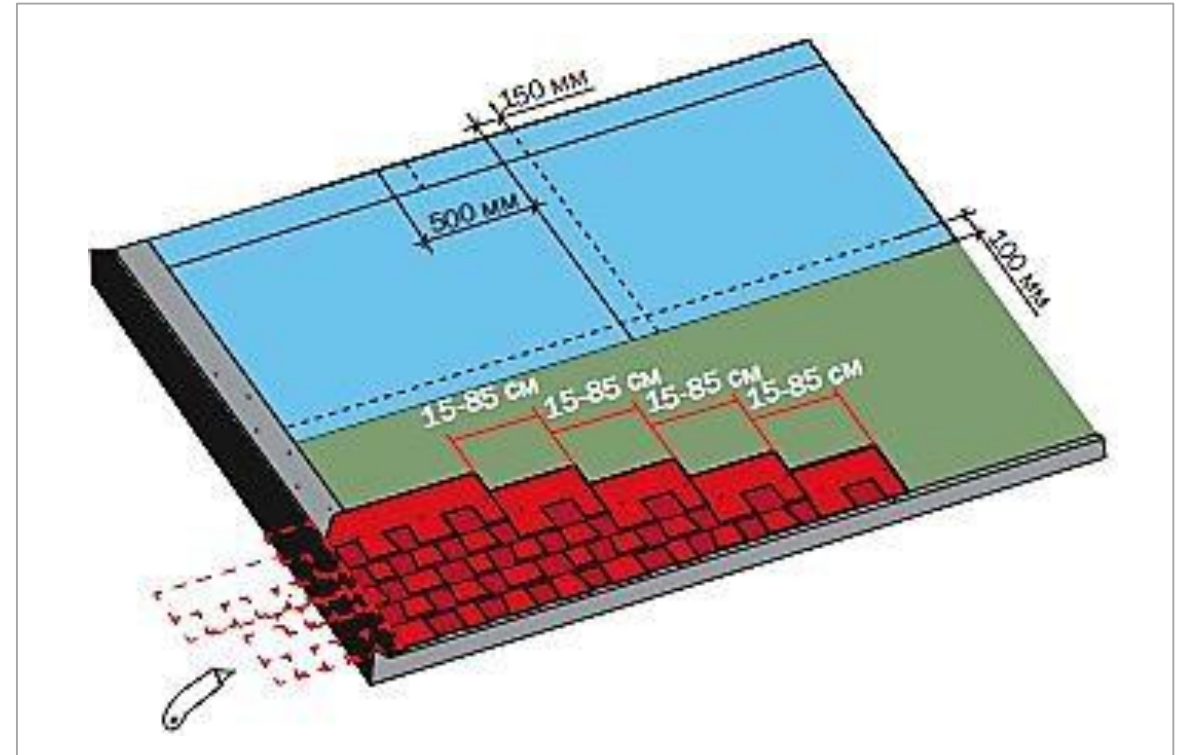
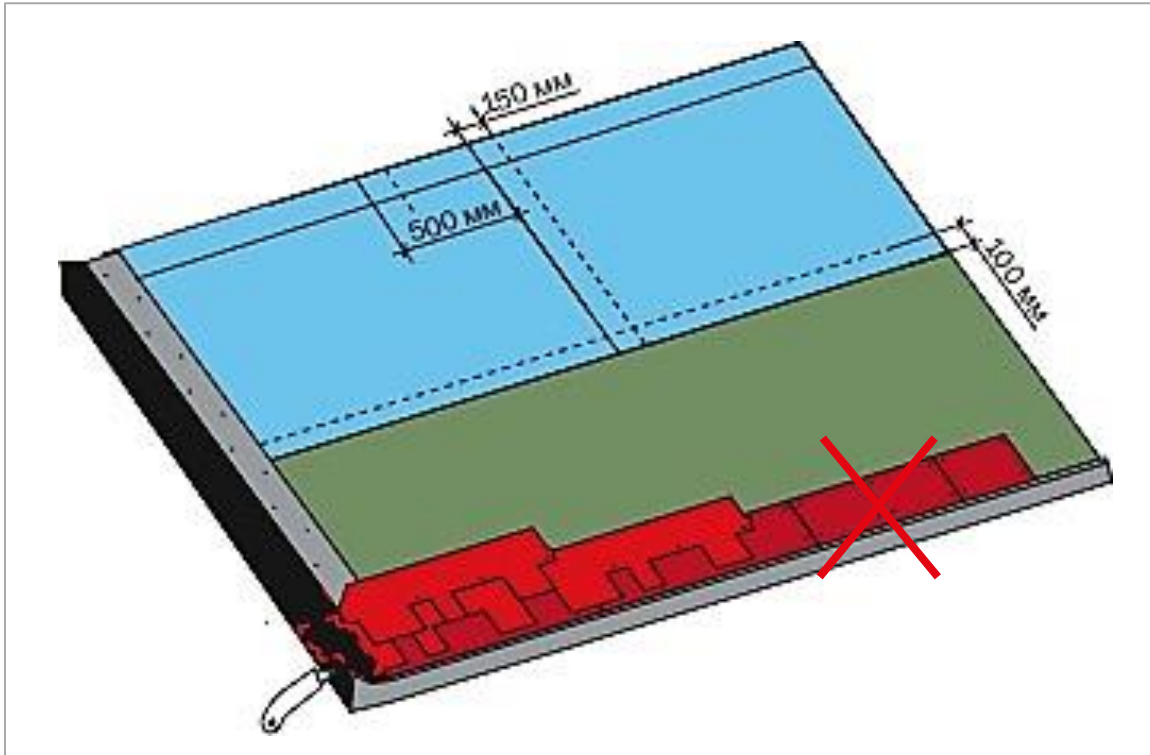




# ADVANTAGES OF MULTILAYER ROOFING SHINGLES

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

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



# CONTINENT COLLECTION



# 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**

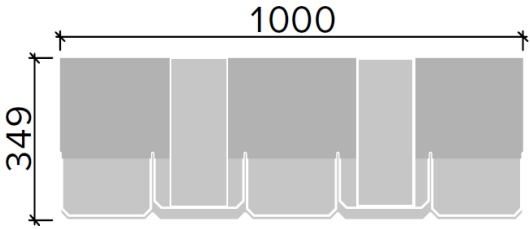
MANUFACTURER'S  
WARRANTY



Asia



America



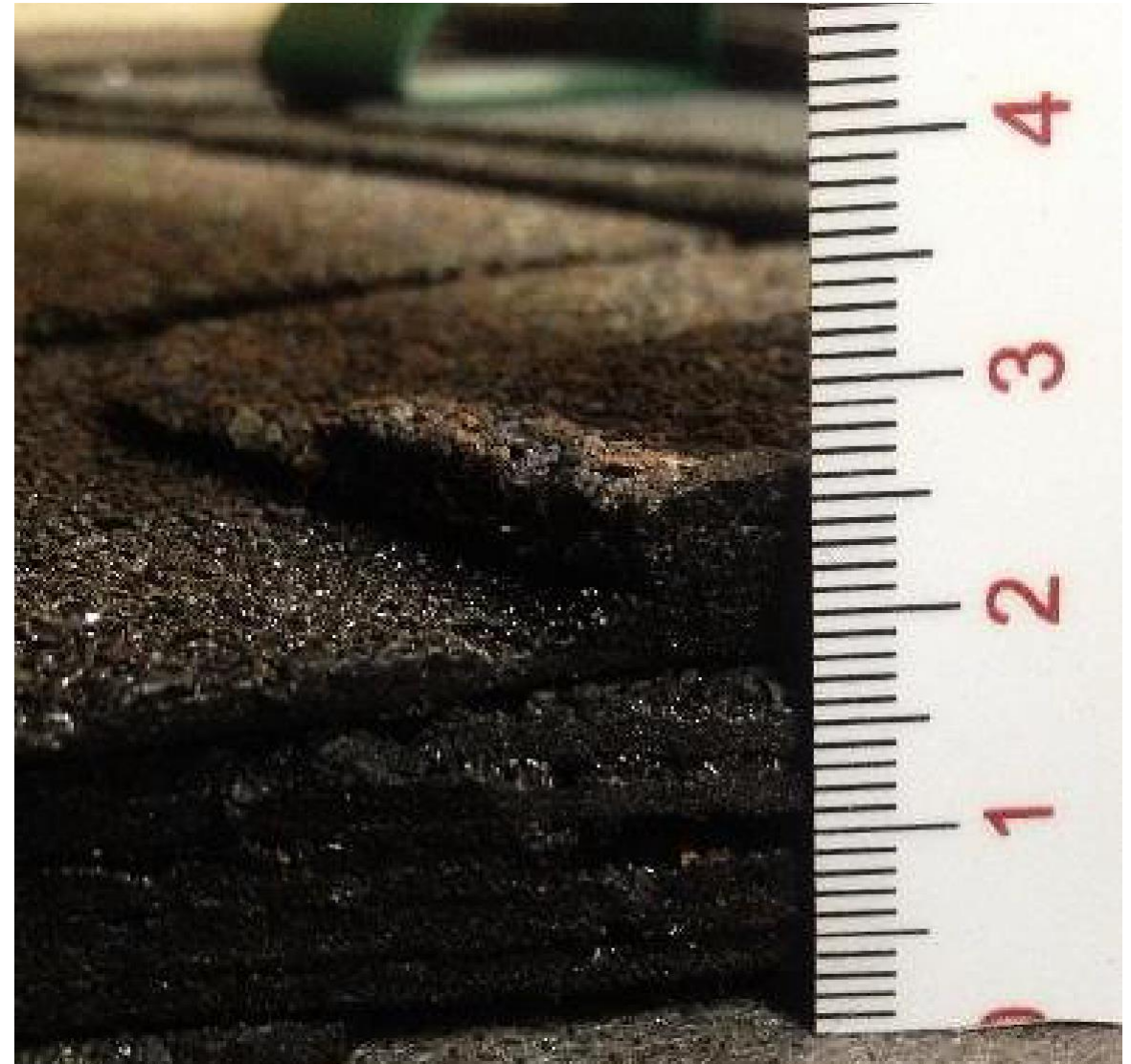
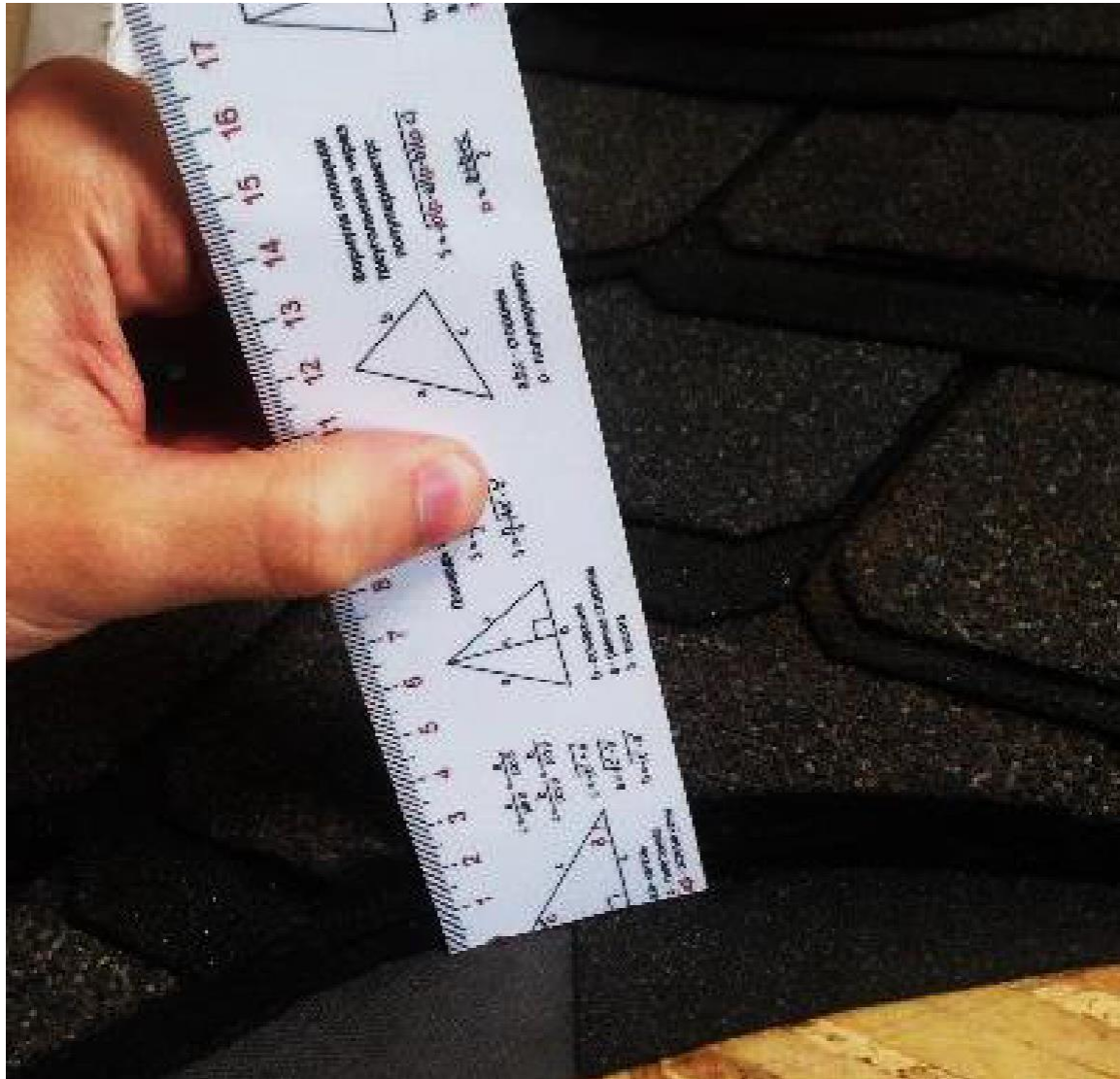
Africa



Europe



# CONTINENT COLLECTION



# WESTERN 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.

**55**  
**YEARS**

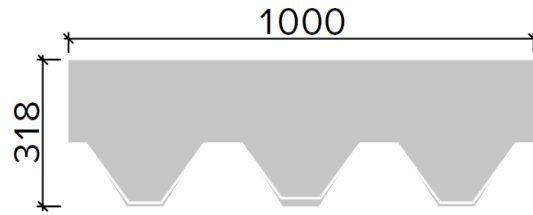
MANUFACTURER'S  
WARRANTY



Canyon



Klondike



Niagara



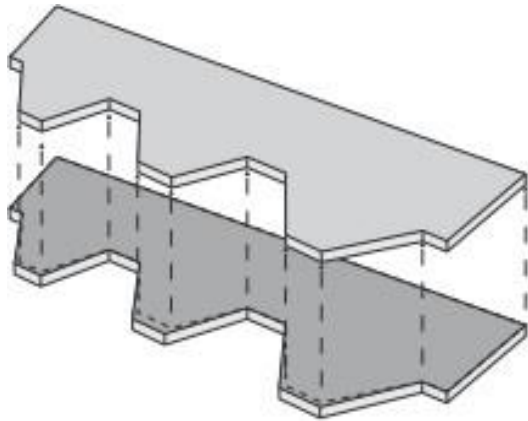
Prairie



# WESTERN COLLECTION



4 layers!!!



Self-adhesive strip for high wind resistance



# JAZZ 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



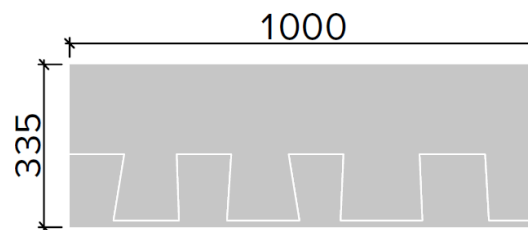
Indigo



Corrida



Barcelona



Seville



Alicante



Sicily



Castile

# COUNTRY AR COLLECTION



# 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



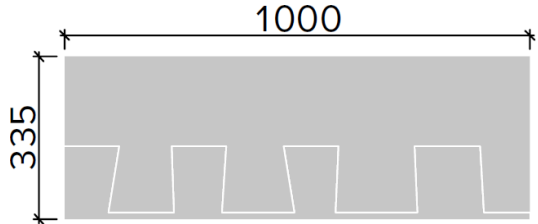
Vermont



Kansas



Montana



Texas



Alabama



Michigan



Atlanta



Indiana



Nevada

# FAZENDA COLLECTION

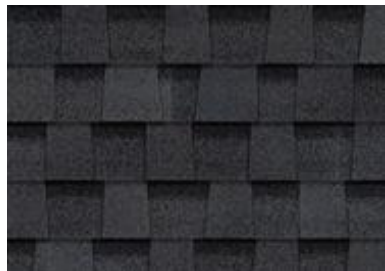


# FAZENDA COLLECTION

TECHNONICOL double-layer bitumen shingles are a durable, beautiful and affordable roofing material. The shingles from the FAZENDA collection are available in a classic palette of colors and have a textured relief. Due to the flexibility, strength and decorative properties of the material, even complex architectural solutions with non-standard roof shapes can be implemented.



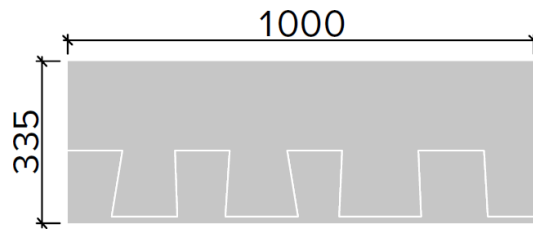
MANUFACTURER'S WARRANTY



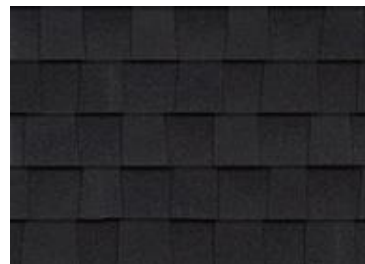
Gray



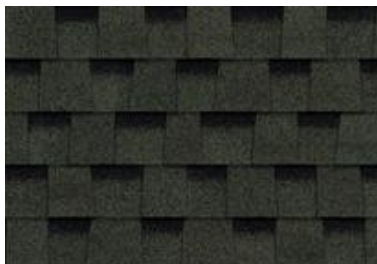
Red



Brown



Black



Green





# **SINGLE-LAYER ROOFING SHINGLES**

# CLASSIC SERIES



# CLASSIC SERIES

## QUADRILLE



Tourmaline



Onyx



Nephrite



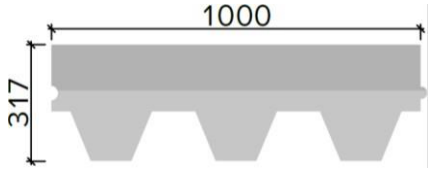
Agate



Jasper



Garnet



## MODERN



Marble



Plateau



Dune



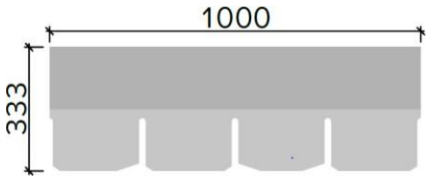
Glacier



Barkhan



Shelf



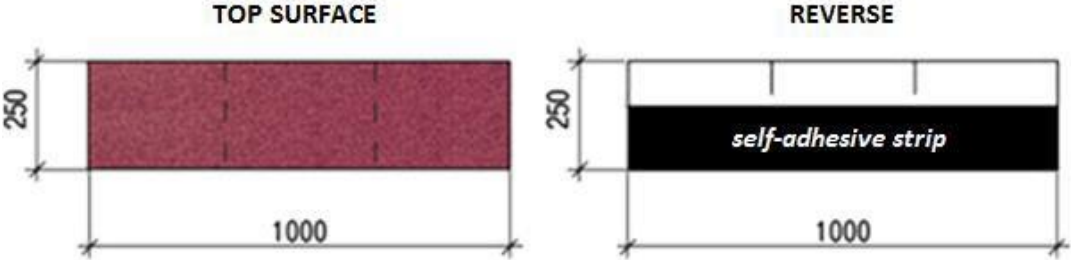
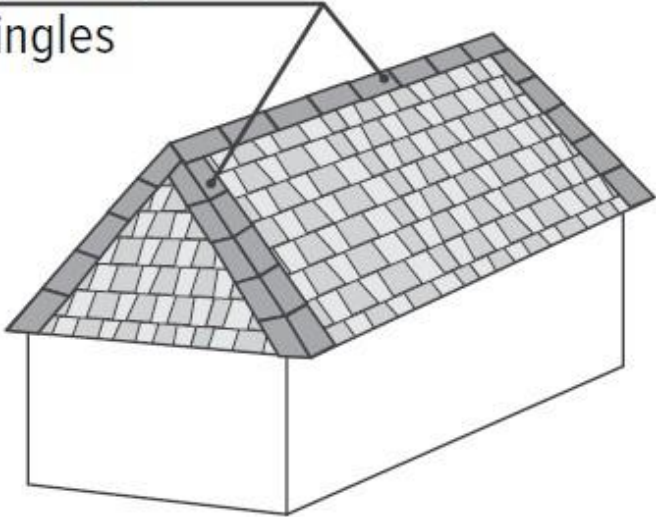




## **HIP & RIDGE & STARTER SHINGLES**

# 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.

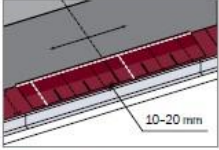


Hip & ridge & starter shingles and cutout pieces of course shingles are fixed with roofing nails in the amount of 12 nails minimum per shingle. Course shingles shall be fixed according to the table on pages 54–56.

INSTALLATION OF ROOFING SHINGLES
58
STARTER STRIP FIXATION

### 7.4. Fixation of the first and following rows of shingles

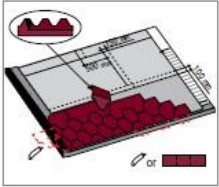
It is recommended to place the first row on long slopes from the slope center to ensure the convenience of horizontal leveling.



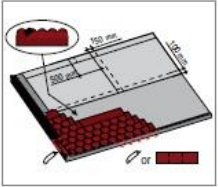
The first row is laid with a step-out of 10–20 mm from the starter strip.

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

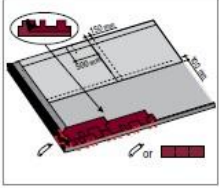
The installation shall be performed in diagonal strips.



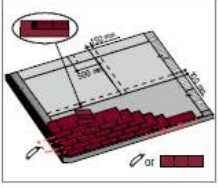
“sonata” cutting pattern



“beaver tail” or cutting pattern



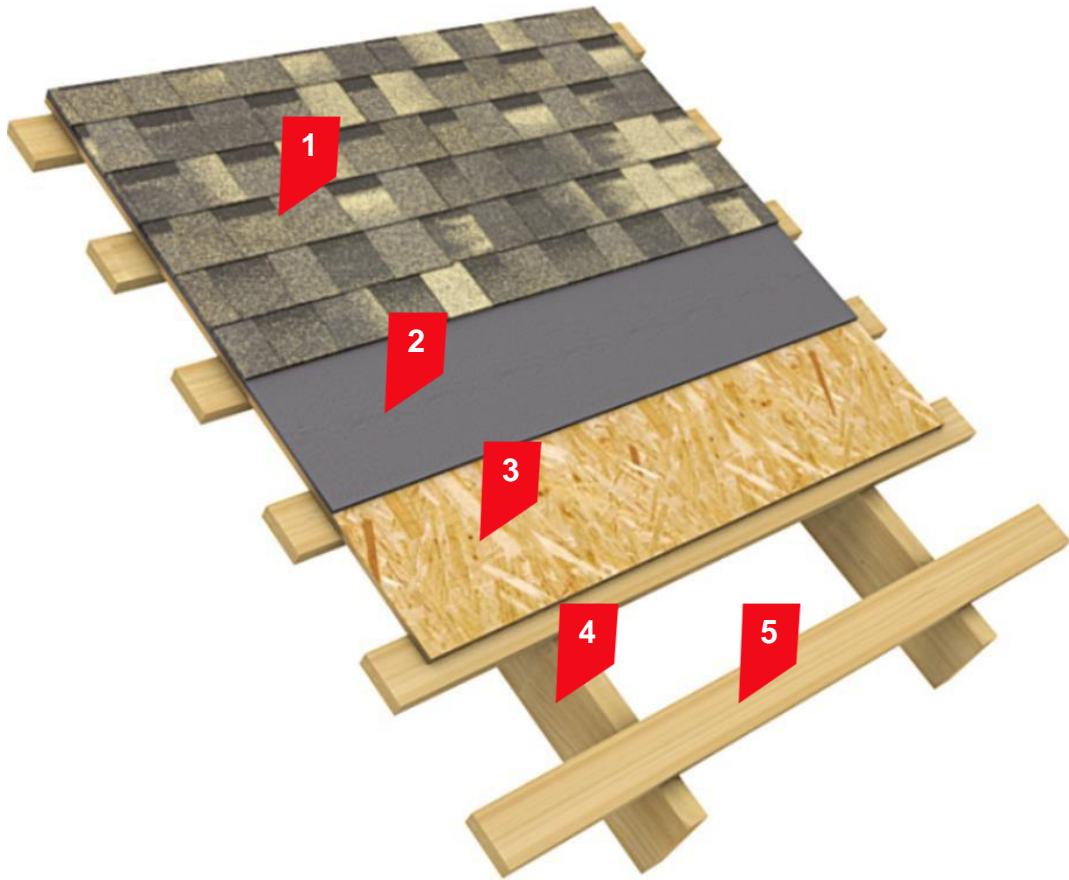
“accord” cutting pattern



“trio”, “quattro” cutting pattern

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

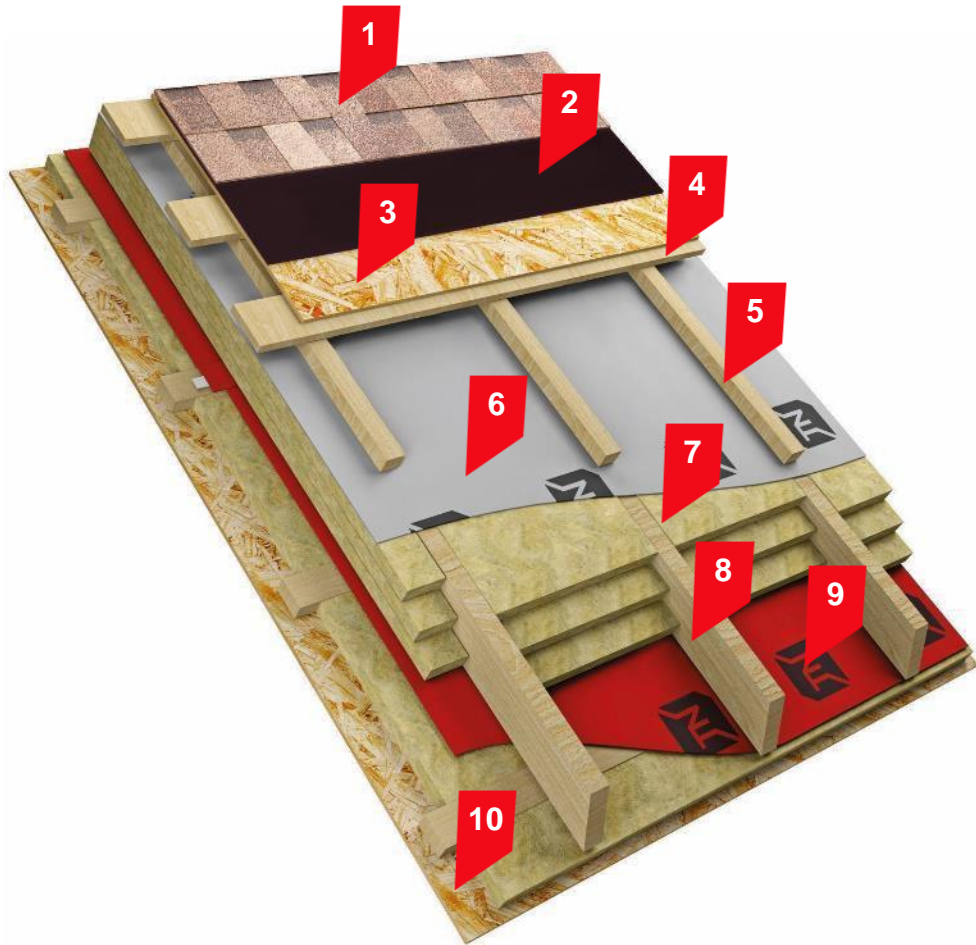
# RELIABLE SOLUTIONS



## 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

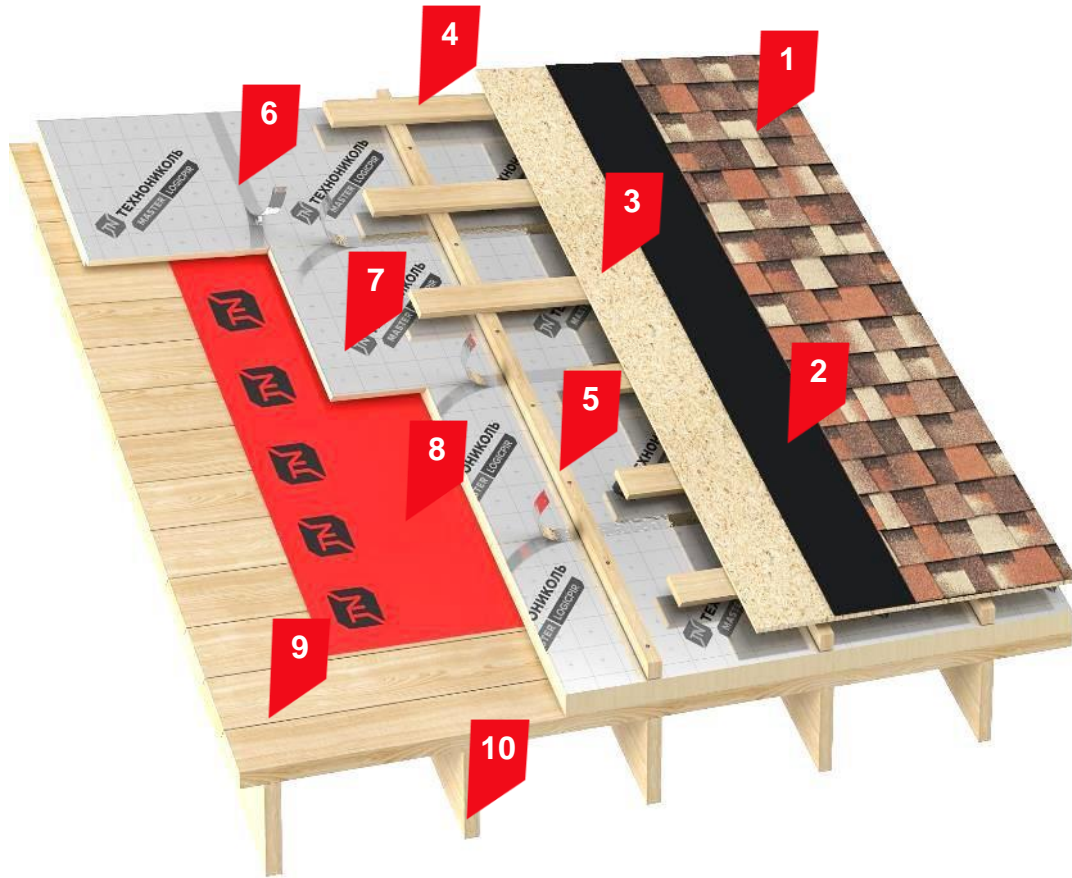


## System with thermal insulation of stone wool:

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 TECHNOMICOL ALPHA
7. Stone wool slabs TECHNOLITE EXTRA
8. Rafter system
9. Vapor barrier film TECHNOMICOL ALPHA
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 TECHNOMICOL ALPHA
9. Wood decking
10. Rafter system

# SYSTEM ACCESSORIES

## VALLEY ROLL MATERIAL



## UNDERLAY MEMBRANES



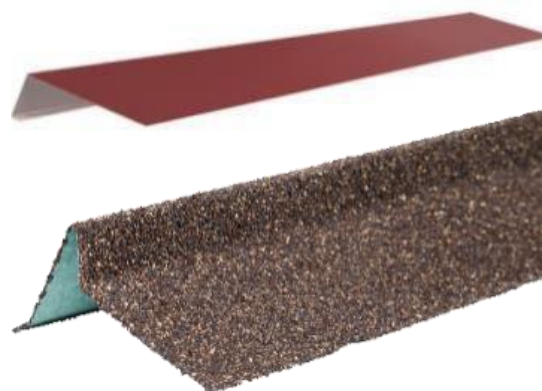
## ADHESIVE MASTIC FIXER



## VENTILATION COMPONENTS



## METAL FLASHINGS



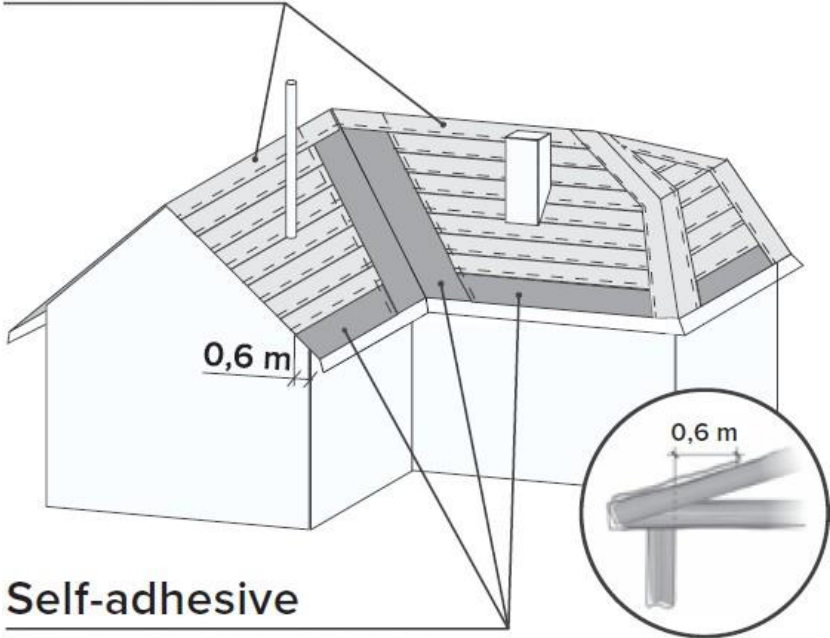
## ROOFING NAILS



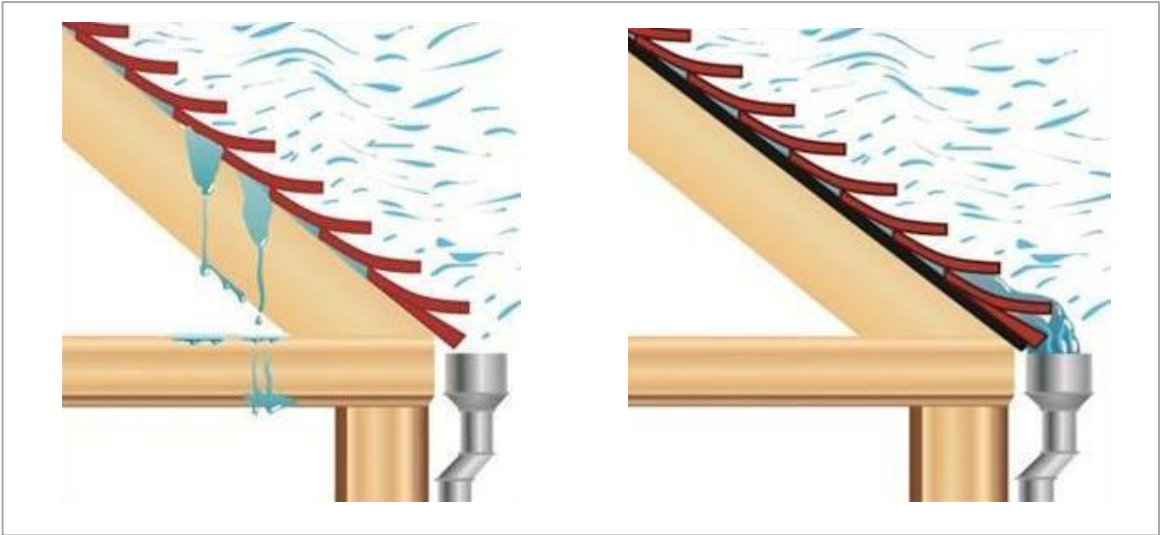
# UNDERLAYMENT

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

Underlayment



Self-adhesive bitumen membrane



# 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.



# 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.

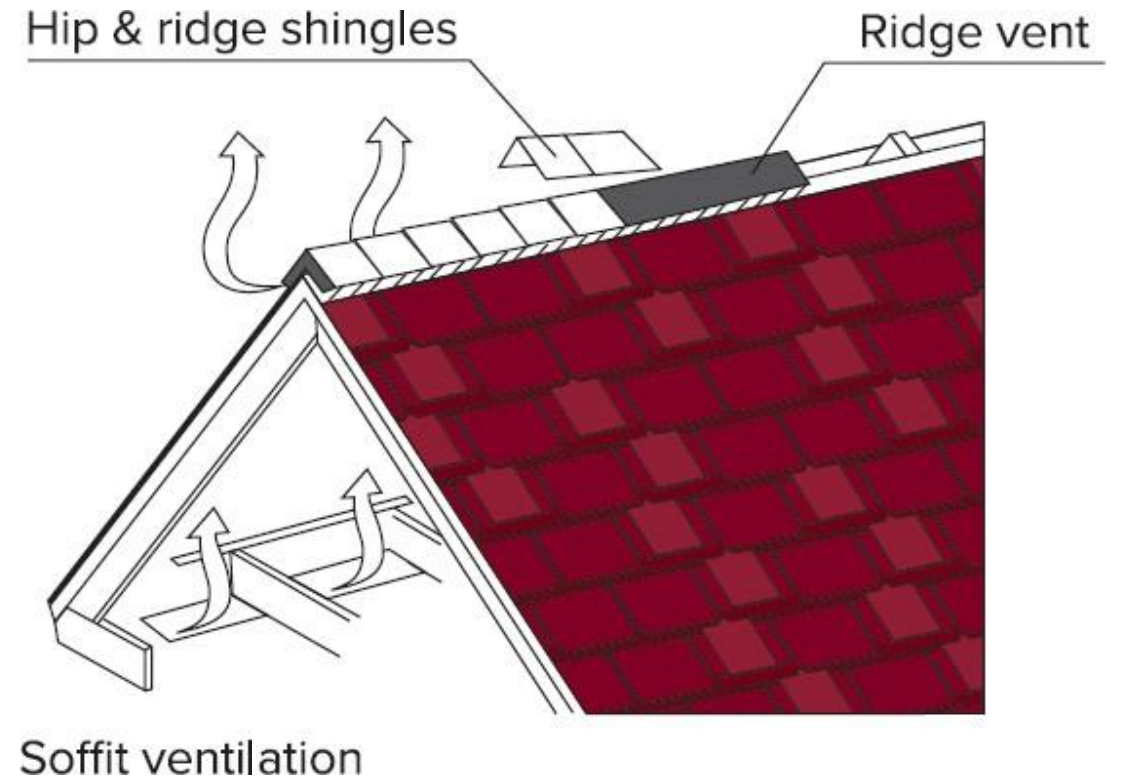
Available in many colors to best fit the main color of the roofing shingles.



# 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.







**TECHNONICOL**



**THANK YOU FOR  
YOUR ATTENTION!**