

## Technical Data Sheet



**4x4 Shingle Round** is a bituminous waterproofing membrane with a mineral-coated surface and a sand-coated subsurface, modified with plastomers, with a fiberglass carrier. Due to its wide self-adhesive tape on the subsurface, it ensures perfect adhesion and waterproofing. It is available in the colors green, red and grey in various shades, as well as allaturca red and allaturca green. Other color options available on special request.

### Benefits:

**4x4 Shingle Round** is an easy to apply, decorative roofing material. Due to its sand-coated subsurface, it does not stick or slip during the application. The product bends up to an angle of 180° down to temperatures of -5°C. The product has a high temperature tolerance, which prevents cracking during and after the application. Due to the wide self-adhesive tape all our shingle types stick perfectly. The product adapts to any roof shape. It does not impose any additional loads onto the building.

### Areas of Application:

**4x4 Shingle Round** is a roofing and waterproofing material for the surface layer. The product is designed to be applied to inclined roofs, complex roof shapes or curvilinear surfaces of domes or vaulted roofs.

### Layers:



1. Surface coating (mineral-coated)
2. Bitumen with polymeric modification
3. Fiberglass carrier
4. Bitumen with polymeric modification
5. Silica sand subsurface coating
6. PE film as adhesive layer protection

### Technique of Application:

#### 1- Surface Preparation:

Prior to the application of **4x4 Shingle Round**, the substructure of the roof is being covered with OSB-panels. Surfaces shall be dry and free of oil, dirt and dust. Then the OSB-panels are being waterproofed by applying 4x4 membrane with the aid of the blowtorch. After the waterproofing is applied, you can start to apply the shingles. You can bend the packages slightly to aid easier separation of the shingle sheets. By the use of 4x4 Ridge Strap for roof ridges, sloped drains and at the chimney-to-wall joints you can completely finish the roofing with visually uniform material.

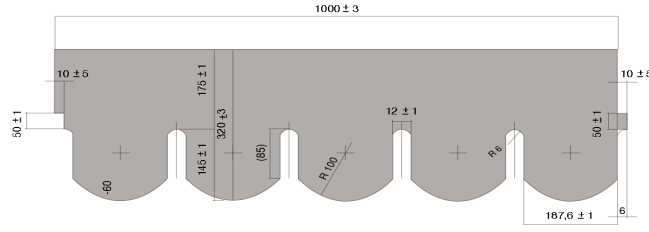
#### 2- Application:

The shingle sheets are mounted to the roof-surface by special rustproof nails and the self-adhesive tape on their subsurface. For low-pitched roofs we recommend the pointwise use of suitable glue products, mixed with thinner. For roofs the application shall start at the lower end and proceed perpendicular to the slope. The rows should be placed with offsets and with attention for good adherence of the product. In order to ensure good ventilation and prevent the accumulation of moisture in the garret we recommend the application of ventilation fixtures at suitable intervals. The ideal temperature range for application is +5 to +30 °C.

#### 3- Protection:

To preserve shingle roofing and ensure a long service-life, it is important to consider the pitch of the roof and the weather conditions at the given location; the use of suitable material (i.e. use of extra nails or extra putty at regions with cold climate) could also enhance the durability. The effects of sudden temperature changes and moisture can also be limited by installing air ducts at roof ridges and eaves for the ventilation of the garret.





**Technical Datasheet:**

TECHNICAL INFORMATION	Method	Unit	Tolerance	4x4 Shingle Round	Bitukal Shingle Round	4x4 Shingle Premium Round
Cod, Type	-	-	-	4P2	4P2	4P2
Reinforcement Type - G:Fiberglass	-	-	-	G	C	C
Mass of Bitumen	TS EN 544	g/m <sup>2</sup>	Section 6.2	≥ 1300	≥ 1300	≥ 1300
Height	TS EN 544	mm	± 3	320	320	320
Width	TS EN 544	mm	± 3	1000	1000	1000
Thickness	-	mm	± 0,1	2,8	2,5	3,2
Tensile Strength (TD/MD)	TS EN 12311-1	N/50 mm	≥	400/600	400/600	400/600
Nail Tearing Resistance (Height)	TS EN 12310-1	N	-	≥ 100	≥ 100	≥ 100
Water Absorption	TS EN 544	<%2	Section 6.4.3	<%2	<%2	<%2
Resistance to UV Radiation	TS EN 1297	Acceptance, 60 cycles	-	Pass	Pass	Pass
Resistance to Blistering	TS EN 544	-	-	Pass	Pass	Pass
Flow Resistance at Elevated Temperature	TS EN 1110	mm	≤2 , 90 °C	≤ 2	≤ 2	≤ 2
Adhesion of Mineral Granules	TS EN 12039	g	max.	≤ 2.5	≤ 2.5	≤ 2.5
Metal Foil Peel-off	TS EN 544	N/mm	Section 6.4.8	≥ 0,2	≥ 0,2	≥ 0,2
External Fire Performance	ENV 1187	-	EN 13501-5	B <sub>ROOF</sub>	B <sub>ROOF</sub>	B <sub>ROOF</sub>
Reaction to Fire	EN ISO 11925-2	-	EN 13501-1	E	E	E

**Packaging:**

A package contains 18 sheets of 1000 x 320 mm. Packages should be stacked on pallets in 19 rows max. For safe transport and storage, the pallets get covered by a pallet-blanket.

**Storage, Shelf Life and Maintenance:**

4x4 Shingle Round packages should be stored in a dry and cool place and kept away from direct heat sources. Please do not stack pallets on top of each other and do not stack more than 19 packages on one pallet.

**Certificates:**

TSE, CE, ISO 9001

**Note: The information in this sheet is not intended as a warranty, it is for informational use only.**

