

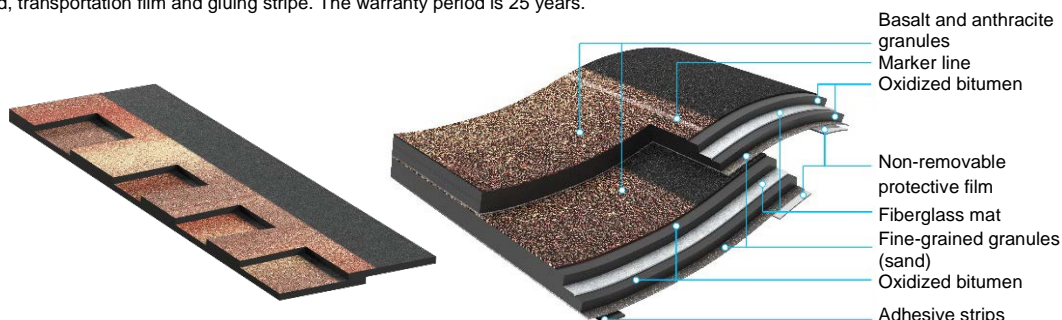
Laminated shingles Döcke PIE DRAGON EUROPA

1. Product description.

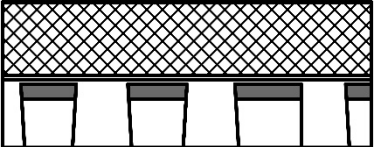
Roofing piece material "Laminated shingles Döcke PIE DRAGON EUROPA" – roofing product in a form of two combined flat sheets, made of impregnated oxidized bitumen fiberglass with figured cuts along one edge of the sheet. The upper surface of the shingles is covered with basalt and anthracite granulate tipped to bitumen. The lower surface off the shingles is covered with fine-grained sand, transportation film and gluing stripe. The warranty period is 25 years.

2. Product usage.

Roofing piece material "Laminated shingles Döcke PIE DRAGON EUROPA" is intended for pitched roofs of buildings and constructions with a roof slope from 12 to 90 degrees.



3. Geometric parameters.

№	Indicators description, units measurements	Value
1	Shape cut and the dressing compound area of the front side of a shingle	 <p>Dragon tooth</p> <p>- main area - shadow side</p> <p>- headlap (color of the granules may differ from the main and the shadow)</p>
2	Length, mm	1 000 ± 3
3	Thickness of each layer, mm	2,5 ± 0,2
4	Width, mm	391 ± 3
5	Quantity of layers in one shingle, pcs.	2
6	Overlap index	3

4. Physical and mechanical properties.

№	Indicators description, units measurements	Value
1	Maximum tensile force in the longitudinal direction, N, not less than	600
2	Maximum tensile force in the transverse direction, N, not less than	400
3	Tensile strength of the nail, N, not less than	130
4	Heat resistance of the material, 2 hours at a temperature, °C, not lower than	100
5	Flexibility of one layer of material on the bar R = 25 ± 0,2 mm, °C, not higher than	0
6	Loss of granules or scales of sprinkling, gram per sample, not more than	2
7	Resistance to aging under the influence of artificial climatic factors	Pass (60 cycles)
8	Water absorption for 24 hours, % mass, not more than	2
9	Resistance to blistering	Stable

5. Logistics characteristics.

№	Indicators description, units measurements	Value
1	Bundles on a pallet	45
2	Number of sheets in a package, pcs.	14
3	Gross weight of one package, kg	30,3
4	Gross pallet weight, kg	1 363
5	Pallet dimensions (with the pallet) LxWxH, mm	1200x1000x1000
6	Covering surface per package, m²	2,38

6. Storage rules.

- Products must be stored in the original packaging of the manufacturer on pallets. Violation of the manufacturer original packaging is strictly prohibited.
- Products must be stored only in a closed and dry room at a distance of at least 1,5 m from the heaters.
- Stacking the pallets on top of each other is prohibited.
- Products must be stored at a temperature not lower than -40 °C and not above +50 °C.
- Products must be stored at a relative air humidity of not more than 80 %.
- Avoid exposure to direct sunlight during storage.
- Bundles stacking:
 - Not more than 16 rows in height with placing an OSB or plywood sheet every 5 rows;
 - Not more than 5 rows without placing sheets.