

TECHNICAL SHEET

IZOELAST REFLEX P4 FLL plus

Waterproofing membrane with a polyester reinforcement and with elastomere modified bitumen

Product description IZOELAST REFLEX P4 FLL plus is a waterproofing membrane made from a polyester reinforcement that is coated on both sides with elastomere modified bitumen to which additions are added that prevent the penetration of roots (membrane is not resistant to penetration of aggressive roots and other parts of the roots, such as Bamboo, which could be physically damaged to membrane). The membrane is on the upper side protected by mineral granules with 10 cm selvedge overlap without granules. Bottom side of membrane is protected by polymeric sheeting.

Characteristics of the product IZOELAST REFLEX P4 FLL plus meets the demands of the standard EN 13707. The additions of elastomere polymers to bitumen and the surface protection of membrane by mineral granules give to membrane high resistance against ageing, UV-light and flexibility at low temperatures. The mechanical characteristics of the reinforcement give high resistance against penetration and tearing to the product and the additions prevent penetration of roots.

Characteristic	EN Method	Unit	Value
Reinforcement	Polyester fleece		
Surface protection	mineral granules / polymeric sheeting		
Length	1848-1	m	≥ 7,5
Width	1848-1	m	≥ 1
Straightness	1848-1	20mm/10m	pass
Thickness	1849-1	mm	≥ 4,2
Water tightness	1928	kPa	≥ 100
Flexibility at low temperature	1109	°C	≤ -15
Flow resistance at elevated temperature	1110	°C	≥ 100
Resistance to tearing	12310-1	N	* NPD
• Longitudinal, transversal			
Shear resistance of joints	12317-1	N/50 mm	* NPD
• Longitudinal, transversal			
Dimensional stability	1107-1	%	≤ 0,3
• Longitudinal, transversal			≤ 0,3
External fire performance	13501-5	Class	F _{ROOF}
Reaction to fire	13501-1	Class	E
Chemical resistance	1847/13707 Annex C	-	pass
Resistance to static loading	12730/A	kg	* NPD
Resistance to impact	12691	mm	* NPD
Tensile properties	12311-1	N/50mm	≥ 600
• longitudinal			≥ 550
• transversal	12311-1	% / 50mm	≥ 35,0
Elongation			≥ 35,0
• longitudinal	13948	-	pass
• transversal			
Resistance to root penetration			
Flexibility at low temperature after artificial aging by long term exposure to elevated temperature (12 weeks at 70°C)	1296/1109	°C	≤ -10
Flow resistance at elevated temperature after artificial aging by long term exposure to elevated temperature (12 weeks at 70°C)	1296/1110	°C	≥ 90
Adhesion of granules	12039	%	≤ 30
Content of dangerous substances	Annex ZA	/	does not contain

* NPD – no performance determined

Use and installation IZOELAST REFLEX P4 FLL plus is used in two or more layered waterproofing of flat roofs as top layer, protecting it against ageing and UV-light and where resistance against root penetration is needed. It is applied by welding with propane gas burner on the under-layer bitumen membrane with 10 to 12 cm longitudinal and 12 to 15 cm cross overlaps.

Storage and transport The rolls have to be stored in an upright position, protected against dampness and extreme temperatures. In winter it is recommended to store the rolls before installation for 24 hours at a temperature of over + 5°C. The carrier is responsible for the correct transport.

Disposal considerations of waste For the removal of waste of product, it is necessary to follow the valid local environmental regulations. Waste classification: 17 03 02 bituminous mixtures other than those mentioned in 17 03 01.



The product is in conformity with **EN 13707:2004+A2:2009**.

The system of quality and handling of the environment is conforming with EN ISO 9001 and EN ISO 14001.