

IZOELAST P4 FLL plus

Waterproofing membrane with a polyester carrier and elastomer (SBS) modified bitumen, resistant to the penetration of roots

Product description

IZOELAST P4 FLL plus is a waterproofing membrane made from a polyester reinforcement, on both sides coated with elastomer (SBS) 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 membrane). The membrane is protected on both sides by polymeric sheeting.

Characteristics of the product

IZOELAST P4 FLL plus meets the demands of the standards SIST EN 13707, 13969 type A and type T and SIST 1031. Because of its excellent flexibility at low temperatures it shows excellent characteristics at installation and deformations, and excellently bridges cracks also 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	Declaration SIST EN 13707, SIST EN 13969
Reinforcement		Polyester fleece	
Surface protection		Polymeric sheeting / Polymeric sheeting	
Length	1848-1	m	≥ 10
Width	1848-1	m	≥ 1
Straightness	1848-1	20mm/10m	pass
Thickness	1849-1	mm	≥ 3,6
Water tightness	1928/2000	kPa	≥ 100
Durability of water tightness against artificial ageing (12 weeks at 70 ° C)	1928/2000	kPa	≥ 100
Flexibility at low temperature	1109	°C	≤ -15
Flow resistance at elevated temperature	1110	°C	≥ 100
Resistance to tearing			
• longitudinal	12310-1	N	≥ 200
• transversal			≥ 200
Shear resistance of joints			
• longitudinal	12317-1	N/50 mm	≥ 600
• transversal			≥ 500
Dimensional stability			
• longitudinal	1107-1	%	≤ 0,6
• transversal			≤ 0,6
Water vapour properties	1931	μ	20000
Reaction to fire	13501-1	Class	E
External fire performance	13501-5	Class	F _{ROOF} (t1)
Chemical resistance	1847/13707 Annex C	-	pass
Resistance to static loading	12730/A	kg	≥ 15
Resistance to static loading	12730/B	kg	≥ 15
Resistance to impact	12691/A	mm	≥ 1000
Resistance to impact	12691/B	mm	≥ 1500
Tensile properties			
• longitudinal	12311-1	N/50mm	≥ 600
• transversal			≥ 550
Elongation			
• longitudinal	12311-1	%/50mm	≥ 35,0
• transversal			≥ 35,0
Resistance to root penetration	13948	-	pass
Flexibility at low temperature after artificial ageing by long term exposure to elevated temperature(12 weeks at 70 ° C)	1296/1109	°C	NPD
Flow resistance at elevated temperature after artificial ageing by long term exposure to elevated temperature(12 weeks at 70°C)	1296/1110	°C	NPD
Content of dangerous substances	Annex ZA	/	no

Use and installation

IZOELAST P4 FLL plus is used regarding the demands of the standards as a finishing layer in green flat roof systems or as a layer in very demanding waterproofing of underground parts of objects that are exposed to water pressure and where resistance against root penetration is needed. Normally it is installed by torching on the entire surface or punctual.

Storage

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 + 5C.



The product is in conformity with **SIST EN 13707:2005+A2:2009**, **SIST EN 13969:2005** and **SIST EN 13969:2005/A1:2007** type A and type T, **SIST 1031:2011** .

Number EC certificate of control of quality: **1404 – CPD – 1059**.