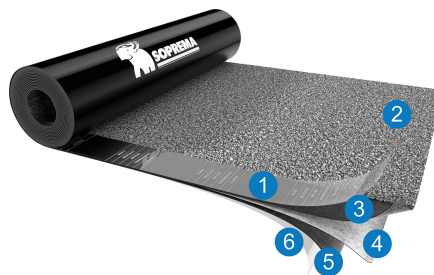


NOVAGUM-P HFR MINERAL

WPBIT0442.a

DESCRIPTION	<p>NOVAGUM-P HFR MINERAL is a elastomeric modified bitumen waterproofing membrane (SBS), industrially manufactured by impregnation of the reinforcement with the waterproofing compound based on distilled bitumen modified with elastomeric polymers and integrated with a special fire resistance additive, which gives to the compound superior technical characteristics.</p> <p>The composite reinforcement, made of nonwoven spunbond polyester in combination with fiberglass, conveys high mechanical characteristics, excellent dimensional stability, isotropic behaviour and elastic performance. Shaping of sheets, straightness, dimensional and surface uniformity are accomplished by hot calendaring of the mass at hot melt fluid state.</p> <p>It is a self-protected membrane, the upper surface is coated with coloured slate chips and selvedge slate free at one side for easy welding overlap. Lower surface is coated with a thermo-fusible polyolefin film.</p>
FIELD OF APPLICATION	<p>NOVAGUM-P HFR MINERAL is particularly suitable to be applied exposed sigle layer and as top layer in multi-layer waterproofing systems, with compatible membranes, for roof coverings exposed to external fire (product class: B-roof (t2) in accordance with CEN TS 1187 and EN 13501-5). General roofing on every substrate (concrete, masonry, steel, wood, insulation panel, etc.) a valid examples of the design application of this product.</p> <p>It is very appropriate where the substrate undergoes significant and frequent movements. It is not suitable to waterproof roof garden.</p> <p>The excellent mechanical characteristics and high level thermo-dynamic stability make it suitable for any climate conditions and all the situations where a barrier against water is required or as underlayers for discontinuous roofing.</p>
METHOD OF INSTALLATION	<p>The excellent thermoplastic properties of the waterproofing compound allow the application with torch-on system or hot air generator. In particular situations, it could be applied with appropriate sealants or mechanical fastenings.</p> <p>The application of the membrane must be carried in good weather conditions and after the substrate has been adequately cleaned and prepared.</p>
PACKING AND STORAGE	<p>The product is packed as standing rolls on wooden pallets wrapped with thermoshinking protective hoods. Rolls must be stored in the upright position, without stacking the pallets to avoid deformations which can compromise the correct application of the membrane. The product must be stored indoor, protected from heat and frost.</p>
INTENDED USE OR USES	<p>Flexible sheets for waterproofing. Reinforced bitumen sheets for roof waterproofing</p> <p>Flexible sheets for waterproofing. Bitumen damp proof sheets including bitumen basement tanking sheets</p> <p>Flexible sheets for waterproofing. Underlays for discontinuous roofing</p>

1. Selvedge
2. Mineral protection
3. Waterproofing mass
4. Reinforcement
5. Waterproofing mass
6. Torch-off film



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TECHNICAL DATA

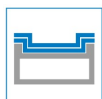
	Norm	Value	Unit	Tolerance
Thickness	EN1849-1	4 (on selvedge)	(mm)	
Roll length	EN1848-1	7,5	(m)	-1%
Roll width	EN1848-1	1	(m)	-1%
Straightness	EN1848-1	PASSED	-	20 mm / 10 m
Flexibility at low temperature (pliability)	EN1109	-25	(°C)	≤
Heat flow resistance	EN1110	90	(°C)	≥
Watertightness	EN1928-B	60	(kPa)	≥
Watertightness	EN1928-A W1	PASSED	(kPa)	2 kPa/24h
Water vapour transmission properties	EN1931	20.000	(μ)	-
M.d. C.d.				
Tensile properties: maximum tensile strength	EN12311-1	800 / 700	(N/50 mm)	-20%
Tensile properties: elongation at break	EN12311-1	40 / 40	(%)	-15
Resistance to tearing (nail shank)	EN12310-1	300 / 300	(N)	-30%
Dimensional stability	EN1107-1	±0,2 / ±0,2	(%)	≤
Peel resistance of joints	EN12316-1	100 / 100	(N/50 mm)	-20
Shear resistance of joints	EN12317-1	800 / 700	(N/50 mm)	-20%
Resistance to static puncture	EN12730-A	20	(kg)	≥
Resistance to impact	EN12691-A	1250	(mm)	≥
External fire performance (note 1)	EN1187/EN13501-5+A1	Broof t2*	Class	-
Reaction to fire	EN11925-2/EN13501-1+A1	E	Class	-
Root resistance	EN13948	NPD		
Determination of adhesion of granules (Loss)	EN12039	PASSED	(%)	<30
Visible defects	EN1850-1	PASSED	-	-
Durability: Flexibility at low temperature after artificial ageing	EN1296/EN1109	-25	(°C)	+15
Durability: Flow resistance at elevated temperature after artificial ageing	EN1296/EN1110	NPD		
Durability: Watertightness after artificial ageing	EN1296/EN1928-B	PASSED	(kPa)	≥ 60
Durability: Visual defects after artificial ageing	EN1297/EN1850-1	PASSED	-	PASSED
Durability: Watertightness against chemicals	EN1296/EN1847	NPD		
Artificial ageing by long term exposure to the combination of UV radiation and elevated temperature and heat: Tensile strength	EN1296/EN12311-1	NPD		
Artificial ageing by long term exposure to the combination of UV radiation and elevated temperature and heat: Elongation	EN1296/EN12311-1	NPD		
Artificial ageing by long term exposure to the combination of UV radiation and elevated temperature and heat: Watertightness	EN1296/EN1928-A	W1	Class	-
Substances dangereuses (notes 2 and 3)	-	CONFORMS	-	

WARNINGS

* Classification valid only for the application of the membrane for systems as indicated by certification available on request.

NORMS

EN13707; EN13969; EN13859-1



Top layer in multi-layer systems



Fire Resistance



Under layers for discontinuous roofing

