Sarnafil® S 327 L

Polymeric membrane for roof waterproofing

Construction

Product Description

Sarnafil® S 327 L is a polyester reinforced, multi-layer, synthetic roof waterproofing membrane based on premium-quality polyvinyl chloride (PVC).

Sarnafil® S 327 L has a unique lacquer coating applied to the top of the membrane to reduce staining from airborne dirt and pollutants.

Uses

Waterproofing membrane for:

- Mechanically fastened, exposed flat roofs

Characteristics / Advantages

- Outstanding resistance to weathering, including permanent UV irradiation
- Excellent weldability
- Excellent flexibility in cold temperatures
- High dimensional stability
- High tensile and tear strength
- High resistance to mechanical impact
- High water vapour permeability
- High solar reflectance (in case of white color top layer)
- Available in various colors
- Reduced dirt pick-up due to lacquer coating
- Recyclable

Approval / Standards

Sarnafil® S 327 L is designed and manufactured to meet most international recognised standards.

- Polymeric sheets for roof waterproofing according to **EN 13956**, certified by notified body and provided with the CE-mark.
- Polymeric PVC sheets for waterproofing according to **GB12952**, **Type P**.
- Polymeric sheets for roof waterproofing according to **JIS A6008**, certified by notified body CECN09001 and provided with the JIS-mark.
- Official quality approvals and agreement certificates and approvals.
- Monitoring and assessment by approved laboratories.
- Quality management system in accordance with EN ISO 9001/14001.

Appearance / Colours

Top surface: Light Grey - NR 7500
White - RAL 9016
Lead Grey - NR 9500
Window Grey - RAL 7040
Reseda Green - RAL 6011
Azure Blue - RAL 5009
Copper Patina - NR 6525
Copper Brown - RAL 8004

Bottom surface: Dark grey

Packaging

Sarnafil® S 327 L standard rolls are wrapped individually in a blue PE-foil. The roll width is 2.0 m and the roll length depends on the membrane thickness:

1.2 mm	25.0 m	(approx. 82 kg per roll)
1.5 mm	20.0 m	(approx. 78 kg per roll)
2.0 mm	15.0 m	(approx. 81 kg per roll)

Storage Conditions / Shelf-Life

Rolls must be stored in a horizontal position on pallet and protected from direct sunlight, rain and snow. Product does not expire if correctly stored.

Do not stack pallets of rolls during transport or storage.

Technical Data

	Unit	Test Method	Properties		
			S 327-12 L	S 327-15 L	S 327-20 L
Effective thickness	mm	EN 1948-2	1.2	1.5	2.0
Water tightness	-	EN 1928	Pass	Pass	Pass
Effects of liquid chemicals incl. water	-	EN 1847	On request	On request	On request
External fire performance	-	EN 1187 EN 13501-5	B_{ROOF}(t1) < 20º	B_{ROOF}(t1) < 20º	B_{ROOF}(t1) < 20º
Reaction to fire	-	EN ISO 11925-2 EN 13501-1	E	E	E
Hail resistance		EN 13583			
Rigid substrate	m/s		≥ 17	≥ 20	≥ 28
Flexible substrate	m/s		≥ 25	≥ 28	≥ 36
Water vapour transmission properties	-	EN 1931	15'000	15'000	15'000
Joint peel resistance	N/50mm	EN 12316-2	≥ 300	≥ 300	≥ 300
Joints sheer resistance	N/50mm	EN 12317-2	≥ 800	≥ 800	≥ 800
Tensile strength	N/50mm	EN 12311-2	≥ 1'000	≥ 1'000	≥ 1'000
Elongation	%	EN 12311-2	≥ 12	≥ 12	≥ 12
Resistance to impact		EN 12691			
hard substrate	mm		≥ 450	≥ 600	≥ 900
soft substrate	mm		≥ 800	≥ 900	≥ 1'250
Resistance to static load		EN 12730			
rigid substrate	kg		≥ 20	≥ 20	≥ 20
soft substrate	kg		≥ 20	≥ 20	≥ 20
Tear strength	N	EN 12310-2	≥ 200	≥ 200	≥ 200
Dimensional stability	%	EN 1107-2	≤ |0.4|	≤ |0.4|	≤ |0.4|
Foldability at low temperature	ºC	EN 495-5	≤ -25	≤ -25	≤ -25
UV Exposure	-	EN 1297	Pass (>5000 h / grade 0)	Pass (>5000 h / grade 0)	Pass (>5000 h / grade 0)

SRI (Solar Reflectance Index)		
White (Initial)	ASTM E 1980-01	104

System Information

System Structure	A wide range of tested and approved Sika accessories for the single ply roofing system is available: vapour retarder, thermal insulation, separation layer, fasteners, detailing membrane, contact adhesive, perimeter bars, welding cords, termination bars, sealants, prefabricated parts (corners, roof drains, scuppers, walkway pads, lightning conductor clips etc.) etc.

Application Details

Substrate Quality	The substrate surface must be uniform, smooth and free of any sharp protrusions or burrs. The supporting layer must be compatible to the membrane, clean, dry and free of grease and dust.

Application Conditions / Limits

Temperature	The use of Sarnafil® S 327 L membrane is limited to geographical locations with an average monthly ambient temperature in the range of -30 °C to +50 °C.
Compatibility	Sarnafil® S 327 L is not compatible with direct contact to other plastics, e.g. EPS, XPS, PUR, PIR or PF. Sarnafil® S 327 L is not resistant to tar, bitumen, oil and solvent containing materials. Use an approved separation layer to completely separate Sarnafil® S 327 L from any incompatible substrate.

Installation Instructions

Installation Method / Tools	Refer to the Sika Installation Manual for single ply PVC membranes. Sarnafil® S 327 L must always be installed at right angles to the deck direction and is overlapped by 120 mm. Sarnafil® S 327 L is fixed by means of approved Sika fasteners along the marked line, 30 mm from the edge of the membrane. The spacing of the fasteners is in accordance with the project specific calculations made by Sika. Overlap seams are welded by electric hot air welding equipment, such as manual hot air welding machines and pressure rollers or automatic hot air welding machines with controlled hot air temperature. Recommended type of equipment: Leister Triac PID (manual welding) and Sarnamatic 661plus (automatic welding) Welding parameters including temperature, machine speed, air flow, pressure and machine settings must be evaluated, adapted and checked on site according to the type of equipment and the climatic situation prior to welding. The effective width of welded overlaps by hot air should be minimum 20 mm. The seams must be mechanically tested with screw driver to ensure the integrity / completion of the weld. Any imperfections must be rectified by hot air welding.
Notes on Installation / Limits	Installation works must be carried out only by Sika instructed and approved roofing contractors. Temperature limits for the installation of the membrane: Substrate temperature: -30 °C min. / +60 °C max. Ambient temperature: -20 °C min. / +60 °C max. Installation of some ancillary products, e.g. contact adhesives / cleaners is limited to temperatures above +5 °C. Please observe information given by Product Data Sheets. Special measures may be compulsory for installation below +5 °C ambient temperature due to safety requirements in accordance with national regulations.

Ecology, Health and Safety Information	A Safety Data Sheet following EC-Regulation 1907/2006, Article 31 is not needed to bring the product to the market, to transport or to use it. The product does not damage the environment when used as specified.
Protective Measures	Fresh air ventilation must be ensured, when working (welding) in closed rooms. Local safety regulations must be observed.
Transportation Class	The product is not classified as hazardous good for transport.
Disposal	The material is recyclable. Disposal must be according to local regulations. Please contact your local Sika sales organisation for more information.

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