

PARAFOR SOLO GFM

PRODUCT DESCRIPTION AND USES

Parafor Solo GFM is a high performance reinforced SBS elastomeric bitumen membrane. Parafor Solo GFM allows an easy mechanically fixed installation thanks to the mark-line with graduations alongside laps, which are torched.

This membrane is used in a single layer mechanically fixed waterproofing system for not accessible roof and technical roofs over steel deck insulated structures with a 3% minimum slope. It is designed for new works and refurbishment works on approved substrates.



COMPOSITION

Surface	Coloured mineral granules or slates
Longitudinal overlap surface	Thermofusible film
Blend	Modified SBS elastomeric bitumen with fire retardant agent
Reinforcement	Polyester nonwoven
Under face	Sanded

DIMENSIONAL CHARACTERISTICS

	Granules	Slates
Nominal thickness (mm) (eyes only)	4.8	5.0
Longitudinal selvedge nominal thickness (mm)	4.0	4.0
Nominal width (mm)	1000	1000
Longitudinal selvedge nominal width (mm)	120	120
Roll nominal length (m)	7.0	7.0
Area density (kg/m ²)	6.543	6.180
Mass per roll (kg)	44.7	42.4

PERFORMANCES

Test	Standard	Unit	Average value
Tensile strength	EN 12311-1	N/50 mm	850 x 600
	ASTM D 5147-6	kN/m	16.3 x 11.7
Elongation at break	EN 12311-1	%	40 x 49
	ASTM D 5147-6	%	54 x 66
Nail tearing resistance	EN 12310-1	N	300 x 350
Cold temperature flexibility	EN 1109	°C	- 20
	ASTM D 5147-11	°C	≤ - 20
Heat flow test	EN 1110	°C	100
	ASTM D 5147-15	°C	≥ 100
Dimensional stability	EN 1107-1	%	- 0.3
	ASTM D 5147-15	%	≤ - 0.3
Static puncture resistance	EN 12730-A	kg	20
Shear joint resistance	EN 12317-1	N/50 mm	600 x 900
Waterproofing	EN 1928		Pass

PACKAGING

	Granules	Slates
Rolls quantity per truck pallet	24	24
Rolls quantity per container pallet	25	27
Rolls quantity per wooden box	23	24

GENERALITIES ABOUT APPLICATION

Using	The generalities about the product using are set out in the ZSA STANDARD
Application	<ul style="list-style-type: none"> ➤ Over steel deck insulated roof: Parafor Solo GFM is fixed mechanically. The density and the distance between fixations have to be calculated according to the upload wind force on the roof. The distance, between fasteners, is never less than 18 cm. The Mechanical fixation is realised with screws according to the method of calculation and Siplast SCR 40x40 mm galvanised washers. The angles, edges with the outlets and valleys are reinforced using Paradiene FM mechanically fixed as base layer + Parafor Solo GFM torched. The upstands with a minimum high of 150 mm are realised as double layer system using Parequerre or Paradiene 35 S R4 as torch applied base layer and Parafor Solo GFM as a top layer. ➤ Over concrete and wooden deck roof: Contact BMI Siplast technical service.
Overlaps	<ul style="list-style-type: none"> ➤ Side lap: 120 mm ➤ Head lap: 100 mm <p>The laps are torched after mineral surfacing is removed by heating and sinking them into the bitumen.</p>
Slopes	<p>Minimal allowed slope is:</p> <ul style="list-style-type: none"> ➤ 3% over steel deck roof. ➤ 1% over concrete roof deck, apart from tropical regions where it is 2%. ➤ 3% over wooden roof deck. <p>In case of slope > 100%: 4 mechanical fixations are needed along head laps.</p>

COMPLEMENTARY INFORMATIONS

- Parafor Solo GFM is approved by CSTB (Parafor Solo FM Document Technique d'Application) for use in Siplast insulated steel roof deck constructions and insulated and non-insulated concrete roof deck constructions as mechanically fixed, single layer, built-up roof waterproofing system on flat and pitched roofs.
- ASTM Classification: Parafor Solo GFM meets or exceeds the requirements of ASTM D 6164 Grade G, type I for SBS-modified bituminous sheet materials using polyester reinforcements.
- FM Approval: Parafor Solo GFM is approved by FM Approvals (FM Standard 4470) for use in Siplast Class 1 insulated steel roof deck constructions, subject to FM conditions and limitations.
- Fire rating: Parafor Solo GFM is classified BRoof T3 according to EN 13501-5 for Roofs External Fire performance on a system build as follow:
 - Steel deck or concrete deck insulated with mineral wool and protected with Parafor Solo GFM single layer system.

Values	Where 2 values for given characteristics are shown, the first is for longitudinal direction and the second is for the cross direction.
Tolerances	The average values derived from standard tests and are subject to the usual production variations. The indicated average values comply with the UEAtc standard and EN 13707. Some slight variations can be noticed as the values are based on the average values obtained from several plants.
Modification(s)	Our company reserves the right to modify its composition as a result of technologic and experiments improvements. This product data sheet supersedes the previous edition, to obtain the up-date technical data sheet, please contact our technical department
Hazardous classification	It is not classified as dangerous according to the international regulation (ADR, RID, IATA, and RTMDR)
Complementary information	This document is only a product technical data sheet, regarding each waterproofing design, please, consult the concerned technical agreement and in case of doubt contact our technical department.
Storage	This product is packaged in rolls set up vertically on pallet or wooden box. It must be stored vertically under shelter, away from heat sources.