

Technical Commercial data Sheet

Tender

Waterproofing bitumen polymer membrane



Dimensional features

Length	10 m - 1% (UNI EN 1848-1)	Toll. ≥
Width	1 m - 1% (UNI EN 1848-1)	Toll. ≥
Thickness	3/4 mm (UNI EN 1849-1)	Toll. 0,4 mm
Weight per l m ² (MINERAL)	3.5/4/4.5 kg (UNI EN 1849-1)	Toll. 10%

Description

The membranes of the TENDER range are realised with an elastoplastomeric compound with a -5°C cold flexibility and are reinforced in glass tissue or polyester reinforced with glass cloth.

TENDER 4 MM P is also available in the "TEX" version with "DECOTEX" treatment, consisting in the application on the upper face of a special black polypropylenic tissue.

Application

- Use Personal Protective Equipment as requested by law;
- Clean properly the surface on which membranes has to be applied;
- TENDER is meant to be applied by flame with a gas propane blow torch by heating the lower face, covered with a special thermofusibile film;
- Apply between +5° C and + 35° C.

Recommended Use

The TENDER membranes can be employed on structures of any type, like base layers, top layers, basement structures and foundations. TENDER P and TENDER MINERAL can be used as top layers and/or single layers.

Storage

It is advisable to keep the rolls in warehouse, not exposed to the sun rays and at a higher temperature than +5°C. Keep the rolls in the upright position. If possible, avoid stacking pallets, especially with slated membranes. It is advisable to use the product within 2/3 months from delivery.

TYPE	REINFORCEMENT	UPPER FACING	THICKNESS WEIGHT/m ²	m ² PER PALLET
TENDER 3 MM V	Glass tissue	Sand	3 mm	250
TENDER 4 MM V	Glass tissue	Sand	4 mm	230
TENDER 3 MM P	Polyester	Sand	3 mm	250
TENDER 4 MM P	Polyester	Sand	4 mm	230
TENDER TEX 4 MM P	Polyester	Polypropylene TNT	4 mm	230
TENDER MINERAL 4 KG V	Glass tissue	Slate	4 kg	250
TENDER MINERAL 3,5 KG P	Polyester	Slate	3,5 kg	280
TENDER MINERAL 4 KG P	Polyester	Slate	4 kg	250
TENDER MINERAL 4,5 KG P	Polyester	Slate	4,5 kg	230

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Test	Standard Reference	TENDER V	TENDER P	TENDER MINERAL V	TENDER MINERAL P	TOLERANCE
Visible Faults	UNI EN 1850-1	absent	absent	absent	absent	-
Straightness	UNI EN 1848-1	10 mm	10 mm	10 mm	10 mm	≤
Watertightness	UNI EN 1928	60 kPa	60 kPa	60 kPa	60 kPa	≥
Cold flexibility	UNI EN 1109	- 5 °C	- 5 °C	- 5 °C	- 5 °C	≤
L dimensional stability	UNI EN 1107-1	NPD	- 0,3 %	NPD	- 0,3 %	≥
Flow resistance	EN 1110	120 °C	120 °C	120 °C	120 °C	≥
Flow resistance after ageing	UNI EN 1296 UNI EN 1109	110 °C	110 °C	110 °C	110 °C	- 10 °C
Tensile strength at breaking L/T	UNI EN 12311-1	300 N/5 cm 200 N/5 cm	400 N/5 cm 300 N/5 cm	300 N/5 cm 200 N/5 cm	400 N/5 cm 300 N/5 cm	- 20 %
Elongation at breaking L/T	UNI EN 12311-1	2% / 2%	35% / 35%	2% / 2%	35% / 35%	-15 a.v. (P) - 2 a.v. (V)
Tear resistance (B method) L/T	UNI EN 12310-1	70 N 70 N	130 N 130 N	70 N 70 N	130 N 130 N	- 30 %
Static load resistance	UNI EN 12730	NPD	10 Kg	NPD	10 Kg	≥
Dynamic punching resistance	UNI EN 12691	NPD	700 mm	NPD	700 mm	≥
Vapour permeability	UNI EN 1931	μ 20000	μ 20000	μ 20000	μ 20000	-
UV ageing	UNI EN 1297	-	Passes the test (4 mm)	-	-	-
Fire reaction	EN 13501-1	NPD	NPD	NPD	NPD	-
External fire reaction	EN 13501-5	F roof	F roof	F roof	F roof	-
Granules adhesion	UNI EN 12039	-	-	30%	30%	≤
Watertightness after exposure to chemical agents artificial ageing	UNI EN 1928 UNI EN 1847/ UNI EN 1296	NPD	NPD	-	-	-
Resistance to water penetration	UNI EN 1928	-	-	CLASS W1	CLASS W1	-
Res. to water penetration Tensile properties after artificial ageing	App. C EN 13859-1	-	-	NPD	NPD	-
Uses	EN 13707 System 2+	Base layer Middle Layer Top layer	Base layer Middle layer Top layer Single layer	Top layer Single layer	Top layer Single layer	-
	EN 13969 System 2+	Foundations Earth retention	Foundations Earth retention	-	-	-

The Saint-Gobain PPC Italia S.p.A. quality system is certified according to EN ISO 9001

Follow proper application and storage modalities.

The CE marking of this bituminous membrane is in accordance with the European Construction Products Regulation 305/2011, is in agreement to the reference technical standards and is supported by certification no. 1370-CPR-0050.

Saint Gobain PPC Italia has the right to change the technical data of this data sheet any time with no need of notice.



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del GBC Italia

CODICE: STCBE 012
REVISIONE: 05
DATA: april 2016
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Saint-Gobain PPC Italia S.p.A. – Attività Isover

Headquarters: Via Ettore Romagnoli, 6 – 20146 Milano

Customer Service Bituver: Via G.Pastore, 15 - 66013 Chieti Scalo (CH) - Tel. 0871/599022 - Fax 0871/ 552483

www.bituver.it

