



COLD FLEXIBILITY  
**-15 °C**

# POLYBOND P POLYBOND P mineral

**POLYBOND P and POLYBOND P MINERAL are plastomeric waterproofing membranes with outstanding performance indicated for civil and industrial waterproofing.**

 <p><b>Guaranteed Quality</b>          UNI EN ISO 9001:2008 and          UNI EN ISO 14001:2004</p>	 <p><b>All year membranes</b></p>
 <p><b>Product in compliance</b>          with European Standards</p>	 <p><b>Lateral and endlap</b>          sealing strips</p>
 <p><b>Polyglass is a member of</b>          Green Building Council</p>	 <p><b>Easily flamed non-stick</b>          polyethylene film</p>
 <p><b>Bituminous membrane</b>          polymeric matrix          ageing control</p>	 <p><b>Manufacturers of</b>          Bitumen Distillate          Polymer Membranes</p>



*Adds value!*

# POLYBOND P POLYBOND P mineral



## TECHNICAL DESCRIPTION

**POLYBOND P** and **POLYBOND P MINERAL** are plastomeric waterproofing membranes with outstanding performance, made of a latest generation distilled bitumen-based compound modified with POLYPROPYLENE and continuous thread non-woven polyester fabric with elevated basic weight reinforced and stabilized by longitudinal glass fibre. The product's general characteristics guarantee excellent mechanical properties in terms of elongation and tensile strength, resistance to puncture, and dimensional stability. The special type of compound ensures remarkable characteristics of low temperature flexibility. The sophisticated technology with which these membranes are made guarantees the product's quality, stability, and durability.

## DESTINATION

PRODUCT	SINGLE LAYER		MULTI-LAYER				ROOT BARRIER	VAPOUR BARRIER	FOUNDATIONS		UNDER ROOFING TILES
	E.	U.H.P.	F.L.		U.L.				R.D.	G.	
			E.	U.H.P.	E.	U.H.P.					
3 mm					•	•					
4 mm			•	•	•	•			•		
5 mm			•	•	•	•			•		
4 kg Mineral			•								
4,5 kg Mineral			•								
5 kg Mineral			•								
4 mm + Mineral			•								

F.L.: Finishing Layer - U.L.: Underlying Layer - R.D.: Rising Damp - G.: Groundwater - E.: Exposed - U.H.P.: Under Heavy Protection

**POLYBOND P** and **POLYBOND P MINERAL** are versatile membranes provided with good mechanical characteristics and elevated dimensional stability that make them particularly suited for the civil and industrial waterproofing of all structures (traditional, metal, prefabricated) in which these qualities are required. Waterproofing systems under heavy protection can be laid in single layers (whenever permitted by product) or multiple layers with minimum thicknesses of 7 mm (4+3 mm).

## APPLICATION: INSTRUCTIONS AND RECOMMENDATIONS

**POLYBOND P** can be provided with its upperside covered with a talc, sand, or a non woven polypropylene fabric. Its underside is protected and faced with **POLYFLAM EasyTorch** (reduced printed area increases product adhesion film). The non-stick polyethylene film is flamed during laying.

In the MINERAL version, the upperside is protected by an even layer of colored or natural mineral slate chips and features (**BYSTOP** patented) lateral and endlap sealing strip for easy overlapping. Available also in the high reflective version thanks to the use of a special white slate with high solar reflection rate used as top protective layer.

Support surfaces must be dry, clean, and sufficiently smooth and level. Application is made by light flaming with propane gas. Laying is quick and easy.



Talc



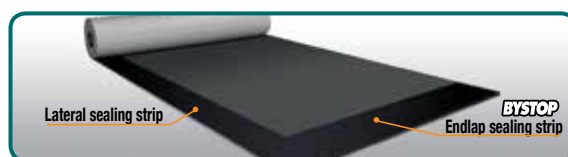
Sand



Non woven polypropylene fabric



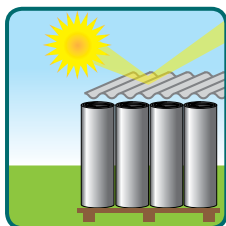
**POLYFLAM EasyTorch**



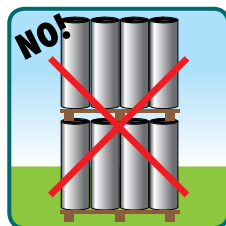
**BYSTOP** (endlap)

## STOCKING

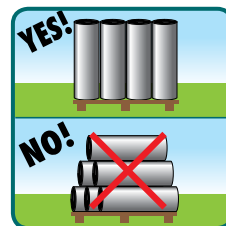
Keep the products in a dry place, away from direct sunlight. Do not place the pallets, one on top of another and the rolls must always be stocked in a vertical position. The contact with solvents and organic liquids may damage the product. Avoid application if the temperature is excessively low or high, avoid stamping (shoes with crampons, small objects or sharp edges). For further information contact Polyglass SpA Technical Office.



Keep out of direct sunlight.



Avoid stocking pallets without evenly distributing the load.



Keep the rolls standing.



Absolutely avoid puncturing the product.

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# TECHNICAL SPECIFICATIONS

TEST METHOD	TECHNICAL CHARACTERISTICS	UNIT OF MEASURE	NOMINAL VALUES	NOMINAL VALUES
EN 1848-1	LENGTH	m	≥10	≥10
EN 1848-1	WIDTH	m	≥1	≥1
EN 1848-1	STRAIGHTNESS	mm/10 m	Pass	Pass
EN 1849-1	THICKNESS	mm	4 (-0,2)	NPD
EN 1849-1	MASS PER UNIT AREA	kg/m <sup>2</sup>	NPD	4 (±10%)
EN 1928-B	WATERTIGHTNESS	kPa	Pass	Pass
EN 1928-B	WATERTIGHTNESS AGAINST ARTIFICIAL AGEING	kPa	Pass	Pass
EN 1928-B	WATERTIGHTNESS AGAINST CHEMICAL	kPa	Pass	Pass
EN 13897	WATERTIGHTNESS AFTER STRETCHING	%	NPD	NPD
EN 13501-5	EXTERNAL FIRE PERFORMANCE	-	NPD	NPD
EN 13501-1	REACTION TO FIRE	Euroclass	E	E
EN 12316	PEEL RESISTANCE	N/50 mm	NPD	NPD
EN 12317	SHEAR RESISTANCE	N/50 mm	650/400 (±20%)	650/400 (±20%)
EN 12311-1	TENSILE PROPERTIES			
	MAXIMUM LOAD AT BREAK			
	Longitudinal	N/50 mm	750 (±20%)	750 (±20%)
	Transversal	N/50 mm	500 (±20%)	500 (±20%)
	ELONGATION AT BREAK			
	Longitudinal	%	45 (±15)	45 (±15)
EN 12691-A	RESISTANCE TO IMPACT	mm	≥900	≥900
EN 12730-A	RESISTANCE TO STATIC LOADING	kg	≥15	≥15
EN 12310-1	RESISTANCE TO TEARING			
	Longitudinal	N	180 (±30%)	180 (±30%)
EN 1107-1	DIMENSIONAL STABILITY	%	≤0,3	≤0,3
EN 1108	FORM STABILITY UNDER CYCLIC TEMPERATURE CHANGE	%	NPD	NPD
EN 1109	COLD FLEXIBILITY	°C	≤-15	≤-15
EN 1110	FLOW RESISTANCE AT ELEVATED TEMPERATURE	°C	≥140	≥140
EN 1110	ARTIFICIAL AGEING BEHAVIOUR (FLOW RESISTANCE)	°C	≥120	≥120
EN 1296	ARTIFICIAL AGEING BEHAVIOUR (VISIBLE DEFECTS)	-	Pass	NPD
EN 12039	ADHESION OF GRANULES	%	NPD	≤30
EN 1931	WATER VAPOUR PROPERTIES μ	-	20000	20000
EN 1850-1	VISIBLE DEFECTS	-	Absent	Absent

In compliance with EN 13707 product standards (layers for roofing) and EN 13969 Type T product standards (layers for foundations). Belonging to the "1a" Class BPP, I.G.L.A.E. - Code of Practice.

## DIMENSIONS - PACKAGING

PRODUCT	THICKNESS mm	WEIGHT kg/m <sup>2</sup>	DIMENSIONS m
POLYBOND P	3	-	1x10
POLYBOND P	4	-	1x10
POLYBOND P	5	-	1x10
POLYBOND P MINERAL Grey	4	-	1x10
POLYBOND P MINERAL Other colours	4	-	1x10
POLYBOND P MINERAL Grey	-	4	1x10
POLYBOND P MINERAL Other colours	-	4	1x10
POLYBOND P MINERAL Grey	-	4,5	1x10
POLYBOND P MINERAL Other colours	-	4,5	1x10
POLYBOND P MINERAL Grey	-	5	1x8
POLYBOND P MINERAL Other colours	-	5	1x8

## AVAILABLE COLOURS

Upperside protected with colored mineral slate chips:



Grey

Green

Red

Brown

\*Reflect White

\*White MHR

\* High reflection colors (Cool Roof).

**Reflect White** - SRI (Solar Reflect Index) ASTM E 1980-11: 57%<sup>1</sup>; R<sub>i</sub>: 48%; E: 94%.

**White MHR** - SRI (Solar Reflect Index) ASTM E 1980-11: 85%<sup>1</sup>; R<sub>i</sub>: 69%; E: 94%.

<sup>1</sup> Initial values according to ASTM, referring to new materials.

Considering the various situations of use, the numerous types of support surfaces and the possibilities for use inside COMPLEX WATERPROOF LAYERING, Polyglass SpA cannot assume any liability for damages derived from the product's results in terms of function or aesthetics. Rev. 1-19



FLAT ROOF WITH PEDESTRIAN ACCESS



FLAT ROOF WITH LIMITED ACCESS



PROFILED METAL DECKS



INDUSTRIAL SAWTOOTH ROOFS



CURVED ROOFS



PITCHED ROOFS



FOUNDATIONS



UNDERGROUND CAR PARK



RAISED CAR PARK



ROOF GARDENS



BRIGDES AND VIADUCTS



RESERVOIRS AND CANALS



GALLERY AND TUNNEL



RENEWAL WATERPROOFING CONVERGING ONLY  
RELINING WITH INSULATING MATERIAL  
SPECIAL RE-ROOFING WORK



DETAILS

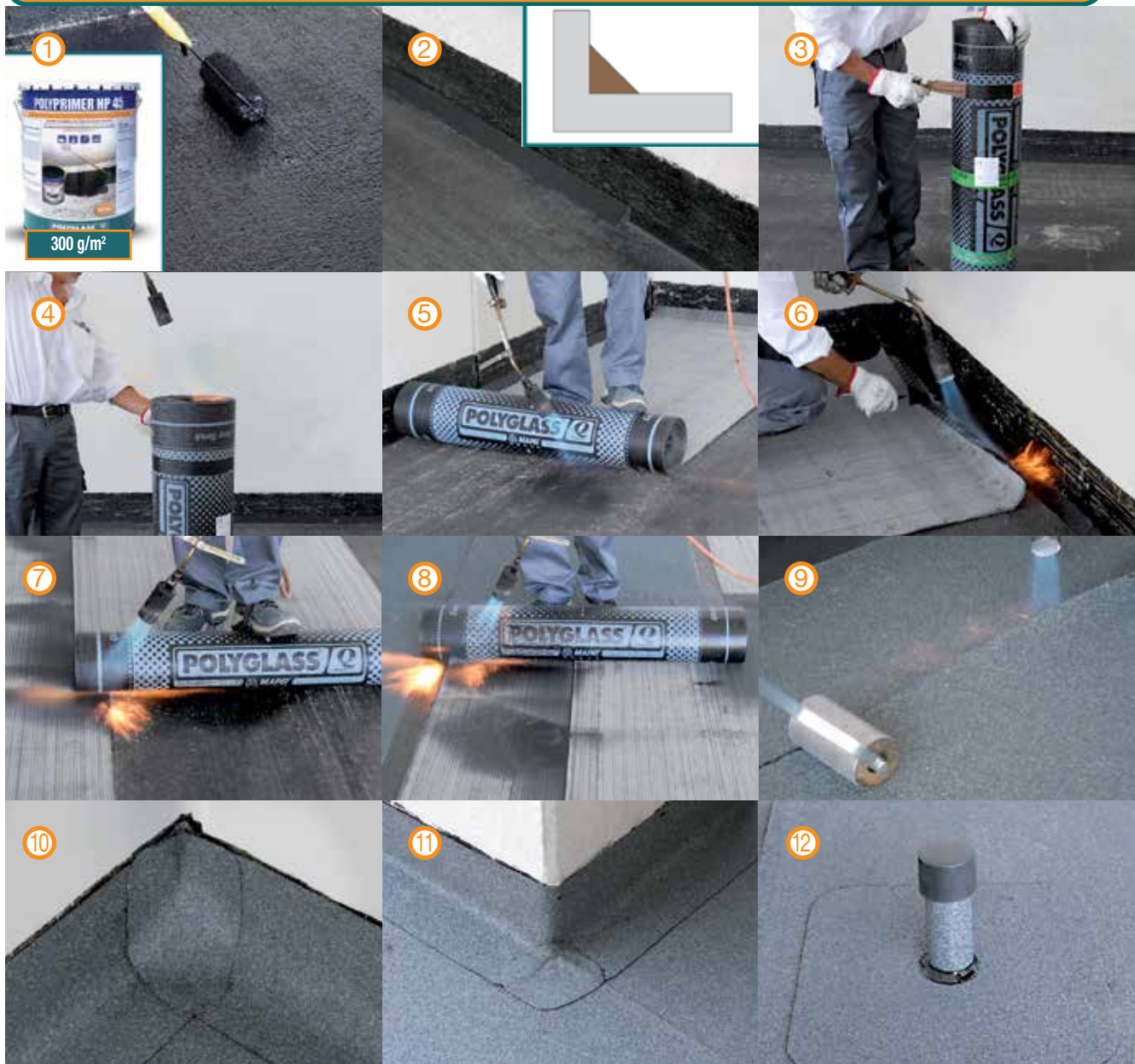


SPECIAL ROOFS

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# WATERPROOFING MEMBRANES

## APPLICATION METHOD



- ① Treat the area to be waterproofed with bituminous primer (POLYPRIMER HP 45 Professional).
- ② Position the "Bordangolo" near the horizontal-vertical joint.
- ③ Completely strip away the product identification tape.
- ④ In the colder months, we recommend heating up the roll of membrane before applying it.
- ⑤ Position and apply the sheet by flaming its bottom surface.
- ⑥ Pull the sheet up to a certain height against vertical surfaces.
- ⑦ Apply the second sheet with adequate overlapping.
- ⑧ Lay the second layer by overlapping. Do not cross the sheets.
- ⑨ Roll the overlapping areas using the special pressing roller.
- ⑩ Example of internal corner.
- ⑪ Example of external corner.
- ⑫ Example of vent pipe.

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*Adds value!*

**POLYGLASS SPA**

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