



COLD FLEXIBILITY  
**-20 °C**

# FLEXSHIELD HP FLEXSHIELD HP mineral

**FLEXSHIELD HP and FLEXSHIELD HP MINERAL are plastomeric waterproofing membranes with outstanding performance indicated for special applications beneath binders on roads, bridges, and viaducts.**

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

## **PROFESSIONAL LINE**

WATERPROOFING MATERIALS AND INSULATING SYSTEMS

**POLYGLASS®** 



*Adds value!*

# FLEXSHIELD HP FLEXSHIELD HP mineral



## TECHNICAL DESCRIPTION

**FLEXSHIELD HP** and **FLEXSHIELD HP 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. In addition to being rotproof, this reinforcement gives the membrane excellent mechanical characteristics in terms of elongation, tensile strength, and resistance to puncture. The special type of compound ensures remarkable characteristics of low temperature flexibility.

## DESTINATION

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

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

The exceptional characteristics of the reinforcement and the compound suit **FLEXSHIELD HP** particularly to special applications, such as double layer waterproofing beneath binders on roads, bridges, and viaducts.

## APPLICATION: INSTRUCTIONS AND RECOMMENDATIONS

**FLEXSHIELD HP** 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), the special non-stick polyethylene film to be 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. 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



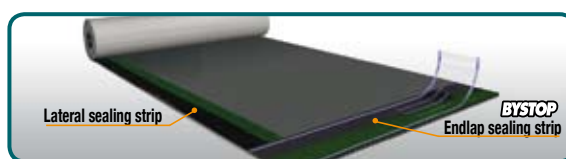
Sand



Non woven polypropylene fabric



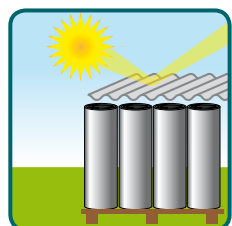
**POLYFLAM EasyTorch**



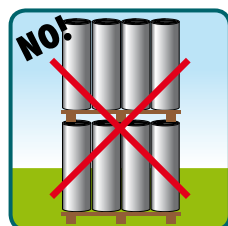
**BYSTOP** (endlap)

## STOCKING

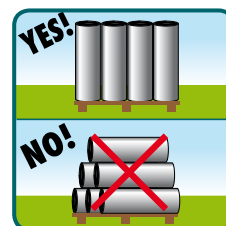
Keep the products packed in the carton box in a dry place, away from direct sunlight. Do not place the pallets, one on top of another and the rolls must always be stocked in a vertical position. The contact with solvents and organic liquids may damage the product. Avoid application if the temperature 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.

## TECHNICAL SPECIFICATIONS

TEST METHOD	TECHNICAL CHARACTERISTICS	UNIT OF MEASURE	NOMINAL VALUES	NOMINAL VALUES
EN 1848-1	LENGTH	m	10 (-1%)	10 (-1%)
EN 1848-1	WIDTH	m	1 (-1%)	1 (-1%)
EN 1848-1	STRAIGHTNESS	mm/10 m	Exceeds	Exceeds
EN 1849-1	THICKNESS	mm	4 (-0,2)	NPD
EN 1849-1	MASS PER UNIT AREA	kg/m <sup>2</sup>	NPD	4,5 (±10%)
EN 1928-B	WATERTIGHTNESS	kPa	Exceeds	Exceeds
EN 13897	WATERTIGHTNESS AFTER STRETCHING	%	NPD	NPD
EN 13501-5	EXTERNAL FIRE PERFORMANCE	-	F <sub>Roof</sub>	F <sub>Roof</sub>
EN 13501-1	REACTION TO FIRE	Euroclass	F	F
EN 12316	PEEL RESISTANCE	N/50 mm	NPD	NPD
EN 12317	SHEAR RESISTANCE	N/50 mm	NPD	NPD
EN 12311-1	TENSILE PROPERTIES			
	MAXIMUM LOAD AT BREAK			
	Longitudinal	N/50 mm	1200 (-20%)	1200 (-20%)
	Transversal	N/50 mm	1000 (-20%)	1000 (-20%)
	ELONGATION AT BREAK			
	Longitudinal	%	40 (-15)	40 (-15)
Transversal	%	40 (-15)	40 (-15)	
EN 12691-A	RESISTANCE TO IMPACT	mm	≥1750	≥1750
EN 12730-A	RESISTANCE TO STATIC LOADING	kg	≥35	≥35
EN 12310-1	RESISTANCE TO TEARING			
	Longitudinal	N	200 (-30%)	200 (-30%)
Transversal	N	200 (-30%)	200 (-30%)	
EN 1107-1	DIMENSIONAL STABILITY	%	≤0,5	≤0,5
EN 1108	FORM STABILITY UNDER CYCLIC TEMPERATURE CHANGE	%	-	-
EN 1109	COLD FLEXIBILITY	°C	≤-20	≤-20
EN 1110	FLOW RESISTANCE AT ELEVATED TEMPERATURE	°C	≥140	≥140
EN 1296	ARTIFICIAL AGEING BEHAVIOUR	°C	≥140	≥140
EN 1109	(COLD FLEXIBILITY)			
EN 1297	ARTIFICIAL AGEING BEHAVIOUR (VISIBLE DEFECTS)	-	NPD	NPD
EN 12039	ADHESION OF GRANULES	%	-	≤30
EN 1931	WATER VAPOUR PROPERTIES	μ	20000	20000
EN 1850-1	VISIBLE DEFECTS	-	Absent	Absent

Thickness and weight parameters are indicative only for Italian market.

In compliance with EN 13707 product standards (layers for roofing) and EN 13969 Type T product standards (layers for foundations).

## DIMENSIONS – PACKAGING

PRODUCT	THICKNESS mm	WEIGHT kg/m <sup>2</sup>	DIMENSIONS m
FLEXSHIELD HP	4	-	1x10
FLEXSHIELD HP	5	-	1x8
FLEXSHIELD HP MINERAL Grey	-	4,5	1x10

## AVAILABLE COLOURS

Upperside protected with colored mineral slate chips:



Grey

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.



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



BRIDGES AND VIADUCTS



RESERVOIRS AND CANALS



GALLERY AND TUNNEL



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



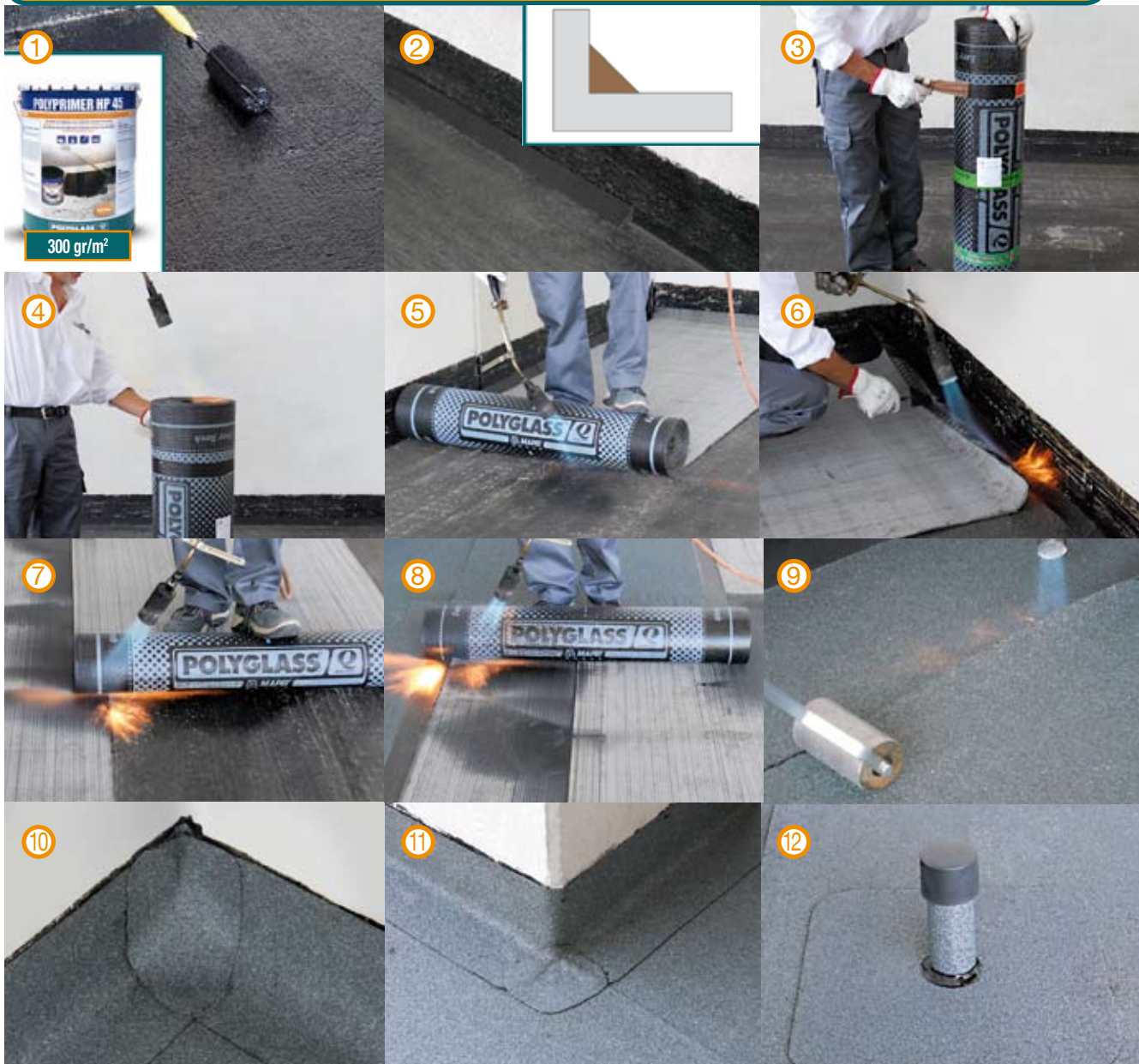
DETAILS



SPECIAL ROOFS

# 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.

POLYGLASS SPA reserves the right to make any and all modifications required for the ongoing perfection of the product without notice.

WATERPROOFING MATERIALS AND INSULATING SYSTEMS

**POLYGLASS** Q

MAPEI  
GROUP

*Adds value!*

**POLYGLASS SPA**

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