



COLD FLEXIBILITY
0 °C

COPPERSHIELD COPPERSHIELD UL

COPPERSHIELD and COPPERSHIELD UL are two prefabricated membranes reinforced with a nonwoven fibre glass mat and a blown bitumen and filler blend.



Guaranteed Quality
UNI EN ISO 9001:2008 and
UNI EN ISO 14001:2004



All year membranes



Product in compliance
with European Standards



Polyglass is a member of
Green Building Council

PROFESSIONAL LINE

WATERPROOFING MATERIALS AND INSULATING SYSTEMS

POLYGLASS®

MAPEI
GROUP

Adds value!

COPPERSHIELD COPPERSHIELD UL



TECHNICAL DESCRIPTION

COPPERSHIELD and **COPPERSHIELD UL** are two prefabricated membranes reinforced with a nonwoven fibre glass mat and a blown bitumen and filler blend. **COPPERSHIELD** is faced with annealed copper foil, which is embossed during the continuous calendaring process; while **COPPERSHIELD UL** is a membrane specifically designed for use as an underlay as it is perfectly compatible and homogeneous with the cap sheet. The specially designed **COPPERSHIELD** embossed pattern - which is produced with a procedure that allows the metal to expand freely - together with the quality of the carrier of both **COPPERSHIELD** and **COPPERSHIELD UL** layers, give ultimate resistance to sudden changes in temperature, even very extensive changes.

DESTINATION

PRODUCT	SINGLE LAYER		MULTI-LAYER				ROOT BARRIER	VAPOUR BARRIER	FOUNDATIONS		UNDER ROOFING TILES
			F.L.		U.L.				R.D.	P.	
	E.	U.H.P.	E.	U.H.P.	E.	U.H.P.					
COPPERSHIELD 4,2 kg			•								
COPPERSHIELD UL 4,2 kg					•						

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

COPPERSHIELD and **COPPERSHIELD UL** are membranes that are suitable whenever the job calls for a special surface finish, in addition to a perfectly watertight covering. **COPPERSHIELD** is suitable for an array of different technical and aesthetic solutions. Furthermore, its impressive mechanical properties and the UV protection offered by the foil mean it can be used with excellent results, especially when tackling certain situations (outer walls, valleys, guttering, etc.) where using a normal waterproof layer would be problematic due to the specific arrangement involved. The guarantee provided by the **COPPERSHIELD** system is dependent on the use of the **COPPERSHIELD UL** membrane as an underlay, as this is the only way to achieve the high dimensional stability that is a distinguishing feature of the full package.

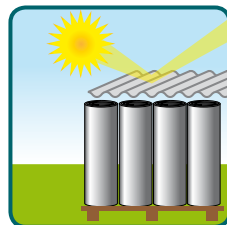
Given the product's morphological properties, it is not recommended for use on top of insulation of any kind.

APPLICATION: INSTRUCTIONS AND RECOMMENDATIONS

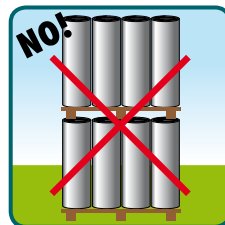
COPPERSHIELD and **COPPERSHIELD UL** are provided with the underside protected by a special non-stick polyethylene film to be flamed during laying. The rolls come with selvedge strips for easy overlapping with a layer of mono-silicone coated film to be stripped away at the moment of application. Support surfaces must be dry, clean, and sufficiently smooth and level. Application with complete adhesion is made by light flaming with propane gas. Laying to best aesthetic effect requires particular care. We recommend inserting 1 vent pipe every 30 m² of surface area. **COPPERSHIELD** and **COPPERSHIELD UL** should not be laid on roofs with less than 5% pitch. In cases of multilayer waterproofing, any underlying bituminous layer must ensure elevated dimensional stability, and for such reason its reinforcement must be made with glass fibre or another layer inside. Given the product's morphological characteristics, it should never be laid directly over any insulation material.

STOCKING

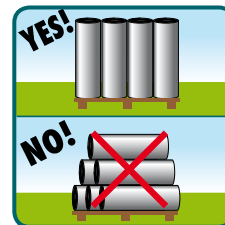
Keep the products packed in the carton box in a dry place, away from direct sunlight. Do not place the pallets, one on top of another and the rolls must always be stocked in a vertical position. The contact with solvents and organic liquids may damage the product. Avoid application if the temperature 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%)	9,9
EN 1848-1	WIDTH	m	1 (-1%)	0,990
EN 1848-1	STRAIGHTNESS	mm/10 m	Exceeds	Exceeds
EN 1849-1	THICKNESS	mm	NPD	NPD
EN 1849-1	MASS PER UNIT AREA	kg/m ²	4,2 (±10%)	4,2 (-5%)
EN 1928-B	WATERTIGHTNESS	kPa	Exceeds	-
EN 13897	WATERTIGHTNESS AFTER STRETCHING	%	-	Exceeds
EN 13501-5	EXTERNAL FIRE PERFORMANCE	-	F _{Roof}	-
EN 13501-1	REACTION TO FIRE	Euroclass	F	F
EN 12316	PEEL RESISTANCE	N/50 mm	-	-
EN 12317	SHEAR RESISTANCE	N/50 mm	-	-
EN 12311-1	TENSILE PROPERTIES			
	MAXIMUM LOAD AT BREAK			
	Longitudinal	N/50 mm	500 (-20%)	680 (-10%)
	Transversal	N/50 mm	500 (-20%)	780 (-10%)
	ELONGATION AT BREAK			
EN 12691-A	Longitudinal	%	4 (-2)	3 (-20%)
	Transversal	%	4 (-2)	3 (-20%)
EN 12730-A	RESISTANCE TO IMPACT	mm	-	-
EN 12730-A	RESISTANCE TO STATIC LOADING	kg	-	-
EN 12310-1	RESISTANCE TO TEARING			
	Longitudinal	N	100 (-30%)	-
EN 1107-1	Transversal	N	100 (-30%)	-
	DIMENSIONAL STABILITY	%	≤0,3	-
EN 1108	FORM STABILITY UNDER CYCLIC TEMPERATURE CHANGE	%	≤2	-
EN 1109	COLD FLEXIBILITY	°C	≤0	≤0
EN 1110	FLOW RESISTANCE AT ELEVATED TEMPERATURE	°C	≥80	≥75
EN 1110	ARTIFICIAL AGEING BEHAVIOUR (FLOW RESISTANCE)	°C	≥80	-
EN 1297	ARTIFICIAL AGEING BEHAVIOUR (VISIBLE DEFECTS)	-	-	-
EN 12039	ADHESION OF GRANULES	%	-	-
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 products standards (layers for roofing).
* Value of the bituminous mass alone.

DIMENSIONS – PACKAGING

PRODUCT	THICKNESS mm	WEIGHT kg/m ²	DIMENSIONS m
COPPERSHIELD	-	4,2	1x10
COPPERSHIELD UL	-	4,2	0,990 x 9,9



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

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



Adds value!

POLYGLASS SPA

Registered Office - Viale Jenner, 4 - 20159 MILANO

Head Office - Via dell'Artigianato, 34 - 31047 Ponte di Piave (TV) - Italy - Tel. +39 04227547 - Fax +39 0422854118

www.polyglass.com - info@polyglass.it