

COMPOSITION

Synthetic liner of TPO modified polyolefin, in two-colour version (sand grey/black), obtained by co-extrusion, which allows to produce in a single layer a liner with different physical-chemical properties on the two sides by inserting a 50 g/m² glass gauze as dimensional stabiliser. The upper sand grey layer is characterised by very high resistance to weathering and ultraviolet rays, whereas the lower black layer is resistant to puncturing and ultraviolet rays. Manufactured in UNI EN ISO 9001 and UNI EN ISO 14001 certified plant. Signal layer less than 20% of the material mass. Laying by installers approved by Flag S.p.A. Finishing and accessories with elements manufactured and approved by Flag S.p.A.

FEATURES

- Resistance to weathering and ultraviolet rays.
- Dimensional stability
- Will not rot
- Mechanical and puncturing resistance

- Adaptability to structural movements
- Flexibility to low temperatures
- Excellent weldability

AREA OF USE

ROOFING

- Movable Ballast System:
 - horizontal surfaces without pedestrian traffic ballasted by gravel
 - horizontal surfaces with pedestrian traffic ballasted by prefabricated square concrete slabs
 - inverted roof
 - sandwich roof
 - vertical details
- Rigid Ballast System:
 - pedestrian roof
 - trafficked roof
 - roof-garden

PHYSICAL-CHEMICAL PROPERTIES

	FLAGON EP/PV 120	FLAGON EP/PV 150	FLAGON EP/PV 180	FLAGON EP/PV 200	FLAGON EP/PV 250	Testing method
Thickness (mm)	1,2	1,5	1,8	2,0	2,5	UNI EN 1849 - 2
Weight (Kg/m ²)	1,15	1,40	1,68	1,85	2,32	UNI EN 1849 - 2
Tensile strength (rectangular test specimen) • average production value • standard deviation	≥ 9,0 L. 10,84 T. 10,13 L. 0,30 T. 0,26	≥ 9,0 L. 10,74 T. 10,08 L. 0,38 T. 0,31	≥ 9,0 L. 10,68 T. 10,21 L. 0,28 T. 0,24	≥ 9,0 L. 10,72 T. 10,32 L. 0,32 T. 0,32	≥ 9,0 L. 10,45 T. 10,17 L. 0,16 T. 0,25	UNI EN 12311 - 2
Elongation to break (rectangular test specimen) • average production value • standard deviation	≥ 550 L. 628 T. 645 L. 16,5 T. 18,9	≥ 550 L. 618 T. 652 L. 12,3 T. 16,7	≥ 550 L. 624 T. 641 L. 12,8 T. 15,5	≥ 550 L. 631 T. 655 L. 16,2 T. 18,1	≥ 550 L. 628 T. 665 L. 14,3 T. 17,6	UNI EN 12311 - 2
Tear resistance (N)	≥ 130	≥ 165	≥ 195	≥ 220	≥ 260	UNI EN 12310 - 2
Puncture resistance (mm)	≥ 400	≥ 700	≥ 900	≥ 1150	≥ 1650	DIN 16726-5.12
Cold bending (°C)	≤ - 40	≤ - 40	≤ - 40	≤ - 40	≤ - 40	UNI EN 495 - 5
Hydrostatic pressure resistance (6 hours at 0,5 MPa)	waterproof	waterproof	waterproof	waterproof	waterproof	UNI EN 1928 meth. B
Dimensional stability after 6 hours at 80°C (%)	≤ ± 0,1	≤ ± 0,1	≤ ± 0,1	≤ ± 0,1	≤ ± 0,1	UNI EN 1107 - 2
Resistance to artificial weathering	no cracking	no cracking	no cracking	no cracking	no cracking	UNI EN 1297
Root resistance	no penetration	no penetration	no penetration	no penetration	no penetration	DIN 4062
Resistance to hail on rigid substrate (m/s)	≥ 25	≥ 25	≥ 25	≥ 25	≥ 25	UNI EN 13583
Thermal ageing in air after 168 d at 70°C Cold bending (°C)	≤ - 40	≤ - 40	≤ - 40	≤ - 40	≤ - 40	UNI EN 1296
Peel resistance of joints (N/50 mm)	≥ 150	≥ 150	≥ 150	≥ 150	≥ 150	UNI EN 12316 - 2
Shear resistance of joints	breaking out of joint	breaking out of joint	breaking out of joint	breaking out of joint	breaking out of joint	UNI EN 12317 - 2
Resistance to impact (mm)	20	20	20	20	10	UNI EN 12691
Resistance to static punching (kg)	≥ 20	≥ 20	≥ 20	≥ 20	≥ 20	UNI EN 12316

*on request, available in fire-resistant version (class B2 according to DIN 4102/1) with EP/PV-FR designation

PRODUCTION STANDARD

Thickness	1,2 mm	1,5 mm	1,8 mm	2,0 mm	2,5 mm	
Width	2,10 m	2,10 m	2,10 m	2,10 m	2,10 m	
Length	25 m	20 m	20 m	20 m	20 m	
Colour	Sand grey / black					

Due to its formulation, the liner is NOT subject to the requirements set forth in the EEC 79/831 regulation on dangerous substances. If the product should be disposed of as waste, we recommend sending it to an authorised landfill site or to an incinerator equipped with post-combustion chamber and fume washing system.



FLAG GROUP