

ROOFING IN TPO FOR PEDESTRIAN TRAFFIC BALLASTED WITH TRADITIONAL PAVING

Warm roof: with sealing element placed on top of the thermal insulation
TOTALLY INDEPENDENT SYSTEM • REINFORCED CONCRETE SUBSTRATE

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■ SUPPORTING ELEMENT or SUBSTRATE

The surface must:

1. Be smooth and free from debris and irregularities that may cause damage to the layers above
2. Be stable over time
3. Be chemically compatible with the roof system components
4. Have an adequate slope. A flat or sub-horizontal roof must have a slope ranging from 1.5 and 5 %.

■ VAPOUR BARRIER

It depends upon the hygrometry of the underlying structures. For further details please refer to the booklet "Vapour Barrier".

A vapour retarder may consist of:

- PE: **VAPOR FLAG** polyethylene film
- Bitumen: **ELASTOVAP**
- Bituminous polymer membrane: **SOPRAVAP 3 in 1**

■ INSULATION ELEMENT

- It must have an adequate compressive resistance (UNI EN 826).
- The insulation boards should be fully bonded in order to avoid unabsorbed water and allow the overlaps to be adequately hot air welded.
- Compatible with the warm roofing system.
- Laying:
 - dry laid on **VAPOR FLAG**
 - dry laid on **ELASTOVAP**
 - totally adherent by **SOPRAVAP 3 in 1**
- Compatible with the warm roof system.

■ SEALING ELEMENT

FLAGON EP/PV synthetic liner manufactured in TPO/FPO modified polyolefin, dimensionally stabilised with a layer of glass fibre (50 g/m²), resistant to weathering, ultraviolet rays and to root growth. It has a signal layer and it is hot air welded on the sheet overlaps.

The perimeter fixing at the base of the upstand must be performed with **Flag pre-drilled bar** in galvanised sheet iron.

Insert **Flag anti-puncturing joint** at the junction between two adjacent bars and hot-weld the tear prevention curb **FLAGOFIL TPO**.

Anti-root membrane, FLL certified.

■ PROTECTION LAYER

FLAG geotextile PP, felt, non-woven, polyester whose weight ranges from minimum 500 g/m² depending upon the condition of the support.

■ BARRIER LAYER

Dry laid **LDPE film** with adequate thickness.

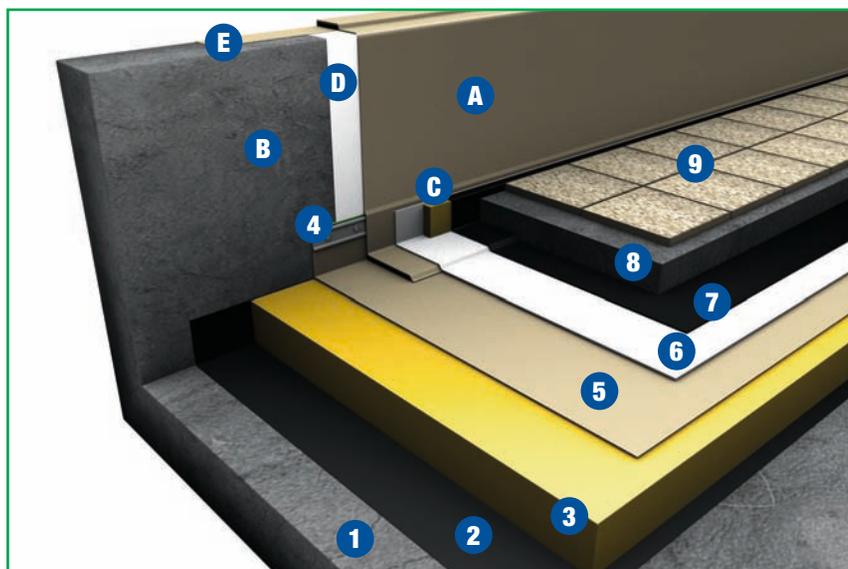
■ BALLASTING AND PROTECTION LAYER

It is made up of a reinforced concrete screed with minimum 5 cm thickness and foot path covered with tiles (or equivalent material).

The waterproof membrane must be fixed at all upstands before laying the slabs.

FLAGON EP/PV

	STANDARD SYSTEM	OPTIMUM SYSTEM	REINFORCED SYSTEM
Finishing	Concrete cap sheet + tiles	Concrete cap sheet + tiles	Concrete cap sheet + tiles
Barrier layer	VAPOR FLAG 0.2	VAPOR FLAG 0.4	FLAG LDPE 0.8 mm
Protection layer	Non-woven felt PP > 500 g/m ²	Non-woven felt PP > 500 g/m ²	Non-woven felt PP > 500 g/m ²
Sealing element	EP/PV - 1.5 mm	EP/PV - 2.0 mm	EP/PV - 2.4 mm
Insulation element	YES	YES	YES
Vapour Barrier	YES	YES	YES
Slopes	1.5 % ≤ P ≤ 5 %	1.5 % ≤ P ≤ 5 %	1.5 % ≤ P ≤ 5 %



Horizontal surface

1. Supporting element
2. Vapour Barrier
3. Insulation element
4. Perimeter fixing by pre-drilled bar
5. **FLAGON EP/PV**
6. Protection layer
7. Barrier layer LDPE
8. Concrete cap sheet
9. Tiles (equivalent material)

Vertical surface

- FLAGON EP/PV**
- h<50 cm **FLEXOCOL** TPO vertical gluing layer
h>50 cm mechanical fixing
- Compressible element
- Separating layer in non-woven felt (non-adhered roof system)
- Possible finishing elements:
 - Flagmetal termination strip and flashing
 - Flagmetal strip under cap
 - Flagmetal perimeter profile

Flag S.p.A. - SOPREMA GROUP

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