

# EXPOSED ROOF SYSTEM IN TPO

Cold roof: with sealing element placed on top of the supporting element without thermal insulation

## MECHANICAL FASTENING SYSTEM REINFORCED CONCRETE SUBSTRATE



### ■ SUPPORTING ELEMENT or SUBSTRATE

The substrate must:

1. Be smooth, sound, clean 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 roofing system components
4. be suitable for mechanical fixing
5. have an adequate slope. A flat or sub-horizontal roof must have a slope ranging from 1.5 and 5 %.

### ■ ADJUSTMENT LAYER-COMPENSATION

Heat treated **FLAG** geotextile PP, felt, non-woven, polypropylene whose weight ranges from minimum 400 g/m<sup>2</sup> depending upon the condition of the support.

### ■ SEALING ELEMENT

**FLAGON EP/PR SC**, synthetic liner in polyolefin TPO/FPO modified reinforced with a polyester mesh, resistant to tearing under wind stress, resistant to ultraviolet rays, to puncturing, to weathering, and to root growth. It has signal layer and it is heat welded on the sheet overlaps.

It's BROOF T2 certified membrane according to UNI EN 13501-5 and UNI ENV 1187 fire classification from external fire exposure (*note 1*). Mechanical fixing by expansion fixing plugs and distribution plates for concrete substrate (*note 2*).

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

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

### ■ PROTECTION

Where pedestrian traffic and pedestrian transit for maintenance operations is possible, the system must be protected by means of **FLAGON WALKWAY TPO**, a anti-puncturing membrane.

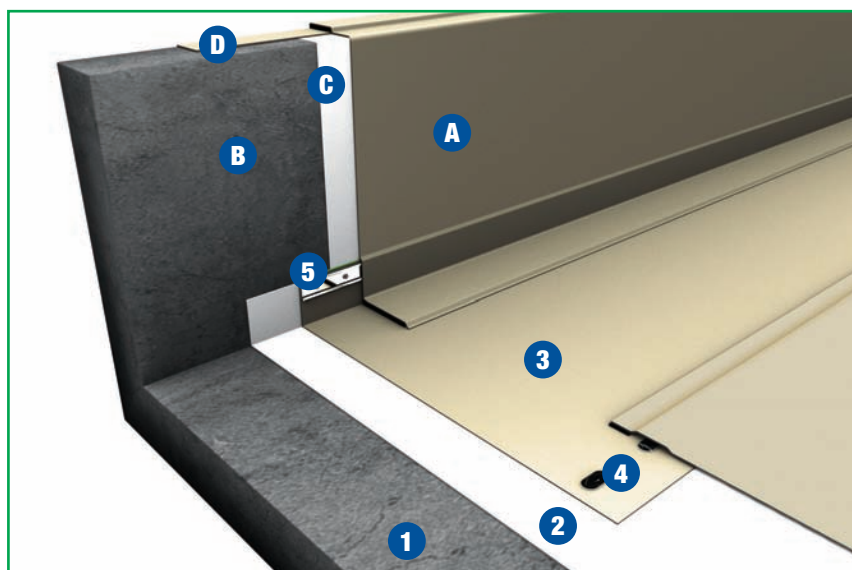
**Note 1:** to meet the requirements of a waterproof roof system BROOF T2 certified in accordance with UNI EN 13501-5 and UNI ENV 1187, a certified PVC membrane together with all the accessories approved by Flag must be applied.

**Note 2:** the mechanical fixing of the membrane to be used must be in accordance with UNI EN 1991-1-4:2005 provided by the manufacturing company.

### FLAGON EP/PR SC\*

	STANDARD SYSTEM	OPTIMUM SYSTEM	REINFORCED SYSTEM
Sealing element	EP/PR SC - 1.5 mm	EP/PR SC - 2.0 mm	EP/PR SC - 2.4 mm
Adjustment layer	Non-woven felt PP ≥ 400 g/m <sup>2</sup>	Non-woven felt PP ≥ 400 g/m <sup>2</sup>	Non-woven felt PP ≥ 400 g/m <sup>2</sup>
Slopes	1.5 % ≤ P ≤ 5 %	1.5 % ≤ P ≤ 5 %	1.5 % ≤ P ≤ 5 %

\*If a fire certificate in accordance with UNI EN 13501-5 and UNI ENV 1187 is not required, standard FLAGON EP/PR can be used.



#### Horizontal surface

1. Supporting element
2. Adjustment Layer
3. **FLAGON EP/PR SC\***
4. Membrane fixing elements
5. Perimeter fixing by pre-drilled bar

#### Vertical surface

- FLAGON EP/PR SC**
- h<50 cm FLEXOCOL TPO vertical gluing layer  
h>50 cm mechanical fixing
- 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