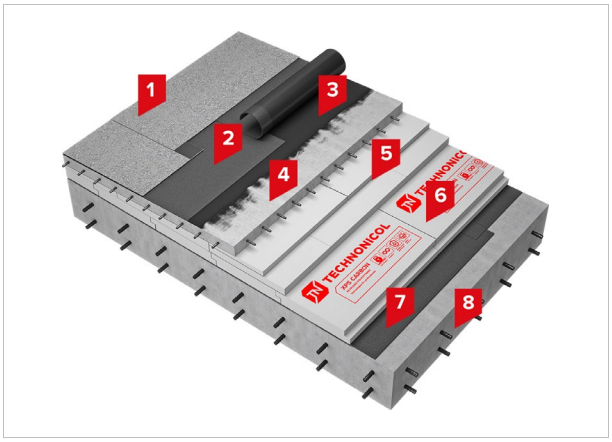
TECHNONICOL India Private Limited
+91 22 2872 8691, +91 11 4372 1455
info@technonicol.in
www.technonicol.in

TN ROOF BRM CONCRETE STANDARD

Solution for a concrete flat roof with polymer-bitumen membrane and XPS thermal insulation



Area of application

Residential and administration buildings, business centers, shopping centers, industrial building roofs on a reinforced concrete base.

Advantages

- High fire resistance
- Reliable waterproofing
- Accessible technology
- Resistance to point loads

System composition and material consumption rates

No.	Material	Unit	Thickness, mm*	Consumption rate**
1	ULTRAPLAST B grey mineral (APP)***	m²	3.0, 4.0	1.15
2	ULTRAPLAST B (APP)****	m²	3.0, 4.0	1.15
3	BITUMEN PRIME COATING	l	–	0.25-0.35
4	Reinforced sand-cement screed	–	–	acc. to calculation
5	XPS TECHNONICOL CARBON PROF SLOPE*****	m³	acc. to project	acc. to calculation
6	XPS TECHNONICOL CARBON PROF 300******	m³	50-200, increments 10 mm	1.03
7	ULTRAFLEX SA*******	m²	1.5	1.15
8	Reinforced concrete base	–	–	–

*The available thicknesses of the selected thermal insulation materials are to be checked with the manufacturer.
**The consumption rates are taken conditionally – according to the manufacturer's recommendations.

Alternative materials:
***ULTRAPLAST A grey mineral (APP), ULTRAFLEX A grey mineral (SBS), TECHNONICOL ENVIRO (SBS).
****ULTRAPLAST A (APP), ULTRAFLEX A (SBS).
*****A sloping layer of sand-cement screed.
******XPS TECHNONICOL CARBON ECO.
*******VAPORSTOP CA 500, ULTRAPLAST B 2 mm (APP), ULTRAFLEX A 2 mm (SBS).

Technical description

The solution is suitable for the roof with a reinforced concrete load-bearing structure. The system is widely used due to its high reliability, maintainability and traditional installation technology.

Self-adhesive polyester-reinforced polymer-bitumen membrane ULTRAFLEX SA is used as a vapor barrier on a concrete decking. The material reliably protects the roof structure from vapor saturation, while being resistant to possible mechanical damage during installation.

Extruded polystyrene slabs TECHNONICOL CARBON PROF 300 used as a thermal insulation layer are featured by low water absorption and high compressive strength. A sloping layer can be made with the special slope-shape slabs TECHNONICOL CARBON PROF SLOPE or sand-cement screed.

The waterproofing system comprises two layers of APP-modified bitumen membrane of the ULTRAPLAST series. The first layer of ULTRAPLAST B with PE finish is torched to the primed reinforced sand-cement screed. The top waterproofing layer is made of ULTRAPLAST B grey mineral that is covered by a coarse-grained slate to protect the material from damage by ultraviolet radiation during the whole service life of the membrane.