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TN FOUNDATION BRM PROTECT

Waterproofing solution for a foundation with polymer-bitumen membrane and drainage



Area of application

The system is designed for underground waterproofing of buildings with an unexploited basement or technical floor constructed in pits with backfilling in soils with a high groundwater level.

Advantages



Excellent adhesion to the base



Efficient removal of groundwater

System composition and material consumption rates

No.	Material	Unit	Thickness, mm*	Consumption rate**
1	BITUMEN-POLYMER PRIME COATING***	I	-	0.25-0.35
2	ULTRAFLEX SA 7000-X (SBS)**** – 2 layers	m²	1.5 × 2	1.15 × 2
3	Self-adhesive fasteners for dimpled membrane	pcs	-	4
4	PLANTER geo	m²	8	1.15
5	Drainage pipe	-	-	acc. to calculation
6	XPS TECHNONICOL CARBON PROF 300 (optional)	m³	50-200, increments 10 mm	1.03
7	Fillet	-	-	acc. to calculation
8	Protective sand-cement screed	-	-	acc. to calculation
9	TECHNONICOL IC-SP 20x10 swelling bar	m	-	acc. to calculation
10	Blind area	-	-	acc. to calculation

*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:

***BITUMEN PRIME COATING in case of using torch-on polymer-bitumen membranes.

****ULTRAFLEX SA HDPE (SBS, 2 layers), ULTRAFLEX SA NB (SBS, 2 layers), ULTRAPLAST B (APP, 2 layers), ULTRAFLEX GREEN (SBS) + ULTRAFLEX A (SBS), ULTRAFLEX BRIDGE (SBS, 2 layers).

Technical description

The waterproofing system comprises two layers of self-adhesive non-reinforced SBS-modified bitumen membrane of the new generation ULTRAFLEX SA 7000-X (a variation SW-D with two self-adhesive lateral overlapping strips is recommended for underground works). Thanks to the unique high-performance polymer film, the membrane has an excellent elongation that prevents it from damage caused by movements of the substrate, which is especially important for foundation solutions. The material is also featured with additional radon protection. The membrane is fully adhered to the surface pre-treated with BITUMEN-POLYMER PRIME COATING (can be replaced with the regular BITUMEN PRIME COATING in case of shifting to torch-on polymer-bitumen membranes). For the transverse joints, one should apply double-sided self-adhesive tape NICOBAND DUO. The second layer is installed over the first one with a shift of 30-50 cm.

The wall drainage system made of dimpled HDPE membrane PLANTER geo and drainage pipes effectively removes the atmospheric and ground waters from the basement walls and protects the waterproofing layer from possible damage. In case the thermal insulation of the socle is required, one may use XPS slabs TECHNONICOL CARBON PROF 300. To seal the concrete joints at the junctions of the slab and the foundation wall, swelling bar TECHNONICOL IC-SP 20×10 is used.