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TN FOUNDATION PREAPPLIED HDPE-LIQUID APPLIED MEMBRANE

Waterproofing solution for a foundation with preapplied HDPE and liquid applied membrane.



Area of application

The system is designed for underground waterproofing of buildings and structures erected in pits with backfilling, in soils with the presence of one or more aquifers of high capacity and hydrostatic pressure.

Advantages



System composition and material consumption rates

No.	Material	Unit	Thickness, mm	Consumption rate*
1	TECHNONICOL EPOXY Primer 021	I	-	0.25-0.35
2	ULTRATHANE PU Coating in 2-3 layers**	m²	1.6-2.5	1.85-3.00
3	PLANTER Eco dimpled membrane***	m²	8	1.15
4	ULTRABASE PA Sand Finish HDPE membrane	m²	1.5-2.0	1.15
5	Reinforcing 100g/m ² geotextile strip	-	-	acc. to calculation
6	TECHNONICOL swellable water bar	r.m.	-	acc. to calculation

* The consumption rates are taken conditionally – according to the manufacturer's recommendations.

Alternative materials:

** ULTRATHENE SUPER, ULTRATHENE SUPER CA. *** 25-50mm thick XPS boards.

Technical description

The fully adhered waterproofing system consists of non-reinforced HDPE membrane with sand finishing ULTRABASE Sand Finish and one-component polyurethane mastic ULTHRATHENE.

ULTRABASE Sand Finish HDPE membrane is laid on the prepared base sandy side upwards. The membrane overlaps are sealed due to free from sand self-adhesive edges. For transversal overlaps special double-side self-adhesive band is used. No protection of the membrane with a sand-cement screed is required. After pouring the concrete of the foundation slab, the membrane securely bonds to the concrete.

After casting and curing of the foundation walls the one-component polyurethane mastic ULTRATHENE is applied. Prior to PU application, the surface must be treated with TECHNONICOL EPOXY Primer 021. ULTRATHENE mastic is applied in 2 or 3 coats. To avoid cracking of the covering it is recommended to reinforce it in the corners with 150-200 mm wide 100g/m² geotextile strip installed between first and second layers of the mastic. The junction between PU mastic and HDPE membrane also should be reinforced with the geotextile strip.

Once the liquid applied membrane on the foundation wall is installed, it must be protected from the mechanical damages during backfilling with 8 mm HDPE dimpled sheets or 25-50mm XPS boards.

