



ULTRABASE PA

Pre-applied HDPE membrane that bonds to poured concrete

PRODUCT DESCRIPTION:

ULTRABASE PA is a high-performance pre-applied HDPE membrane designed for waterproofing of foundations, tunnels and other engineering structures. The material represents composite sheets of thick HDPE membrane with a special adhesive compound that reacts with a wet mortar and gives an excellent integral bonding. The waterproofing membrane bonds directly to the concrete, thus sealing it and preventing any ingress of water around the structure, even in cases of soil sedimentation.

AREA OF APPLICATION:

Pre-applied HDPE membrane ULTRABASE PA is used for waterproofing of foundations, tunnels, underground parts of buildings and structures in pre-applied systems with liquid concrete pouring on top of the material.



ADVANTAGES:

- Highly reactive adhesive ensures complete and reliable adhesion to the concrete surface.
- Exceptional dimensional stability, puncture, and tear resistance.
- The membrane does not require protection before backfilling.
- Can be used as a barrier to water, moisture, and gas.
- Versatile area of application.
- Suitable for different soil conditions.
- Weather resistant.
- Strong resistance to industrial chemicals.

PERFORMANCE OF WORKS:

The surface must be solid and aligned; it should not have gaps, cracks, sharp protrusions or other irregularities above 12 mm. The substrate must be stable to avoid its movements due to traffic or concrete pour. It is possible to install the membrane over the wet surface but standing water to be removed.

Unroll and align the HDPE membrane to the application area facing the substrate and the release liner side facing the concrete pour, cropping the material when necessary. The overlaps along edges joints and sheet ends overlaps should be not less than 75

mm. The spacing between the two sheets end overlaps should be at least 300-500mm(staggered). Ensure the overlapping area is clean and free from contamination, then remove the plastic release liner from between the overlaps as the two sheets are bonded together and press it firmly with a roller. Ultrabase PA double sided tape is not required for overlaps. However, if any self-adhesive opens or loses adhesion, it shall be sealed with double sided tape. The tape shall be firmly pressed and rolled using a heavy roller to activate the pressure-sensitive adhesive prior to concrete pouring.

In confined areas, while installing the membrane on vertical surfaces, fix it with appropriate fasteners at the required height. Remember to place the HDPE membrane facing the substrate and liner side facing the concrete pour. Additional mechanical fixation can be done at the selvedge by means of low-profile head fasteners to ensure the membrane lays flat and to increase the quality of overlaps. All fasteners must be covered by overlapping layer of the subsequent roll. Carefully remove the disposable plastic release liner of the membrane.

ULTRABASE PA can be temporary exposed to weather and UV, however, effort should be taken to prevent mechanical damage of the membrane. Any punctured or damaged areas should be repaired with patches of ULTRABASE PA membrane with minimum overlapping of 100 mm in every direction from the place of damage. All patch edges to be sealed with ULTRABASE PA TAPE.

NOTE: ULTRABASE PA HDPE membrane should not be applied when the ambient temperature is below -2°C. At temperatures below +10°C the material to be heated slightly with the means of a hot air gun to improve the initial adhesion and restore characteristics of the membrane.

MAIN CHARACTERISTICS:

Properties	Test Standard	Performance	
Composite thickness, mm	ASTM D 3767	1.5	1.8
Bare HDPE film thickness, mm	ASTM D 3767	0.9	1.2
Length x width, m		20 x 1.5	20 x 1.5
		20 x 2.0	20 x 2.0
		20 x 2.4	20 x 2.4
Tensile strength, MPa	ASTM D 412 -2016	25±2	28±2
Elongation, %	ASTM D 412 -2016	≥500	≥500
Puncture resistance, N	ASTM E 154	>1000	>1500
Foldability at low temperature, °C	ASTM D 1970	≤-25	≤-25
Lap adhesion, N/m	ASTM D 1876	≥1500	≥1500
Resistance to Hydrostatic pressure, m	ASTM D 5385	>70	>70
Crack cycling,	ASTM C1305	Pass	Pass
Peeling strength with post-cast concrete, N/m	ASTM D 903	1000 (±15%)	1000 (±15%)
UV Exposure, 45 days	Internal test method	Pass	Pass
Dimensional Stability, %	ASTM D 1204	< 0.5	< 0.5

STORAGE:

Rolls of the material should be stored indoors in a dry place in their original packaging and taken to the construction site ready to use. Rolls should be stored upright on pallets in a 1-row height. Falls or other mechanical impacts should be avoided during transportation and storage. Roll's packaging should not be damaged. Shelf life in indicated conditions – 12 months.

HEALTH AND SAFETY:

- For information and advice on the safe handling, storage and disposal of chemical products, users shall contact company personnel and refer to the Safety Data Sheet.
- Complete rolls should be handled by minimum two persons.