



MULTIGUARD HYDROFAB®-PEE

Prefabricated HDPE waterproofing Membrane for Basement, Below Grade or Above Grade concrete

INTRODUCTION:

MULTIGUARD® HYDROFAB® PEE are a thick prefabricated high-density polyethylene membrane, an aggressive, pressure-sensitive adhesive and a weather-resistant protective coating. Unlike conventional non-adhering membranes, which are vulnerable to water ingress tracking between the un-bonded membrane and structure, the unique **HYDROFAB® PEE** seal to concrete prevents any ingress or migration of water around the structure.

HDPE membrane with pre-applied pressure sensitive adhesive with sand finish, which bonds integrally to poured concrete, remaining in place in case of settlement of substrate. It is an ideal product for water and damp proofing of terrace, roofs, sunken slab, and basement etc. where structural movement or future crack is expected.

Unique Features:

- Forms a unique, integral seal to concrete poured against it. This prevents water migration and makes it unaffected by ground settlement beneath slabs.
- Fully-adhered watertight laps and detailing.
- Provides a barrier to water, moisture and gas — physically isolates the structure from the surrounding ground.
- Superior flexibility
- Long term crack resistance
- Superior freeze/thaw resistance
- Very low shrinkage
- Non-toxic
- Chemically resistant, effective in all types of soils and waters - protects structure from salt or sulphate attack.

APPLICATION AREAS:

HYDROFAB® PEE creates a continuous bond to poured concrete, unaffected by ground settlement. The membrane acts as an impermeable barrier to water, moisture and gas while providing good puncture resistance during placement of reinforcement bars. The membrane is inert and is resistant to chemicals, acids, bases, alkalis and salts — providing excellent corrosion resistance.





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Suitable across applications:

1. Basements
2. Podiums
3. Parking Areas
4. Retention Walls
5. RC Members
6. Tunnels, Underpasses & Culverts
7. Water Retaining Structures
8. Sewage Treatment Plants
9. Underground Metro Stations
10. Service Rooms
11. Pier & Harbour protection

TECHNICAL DATA:

PROPERTIES	TEST STD	UNIT	SPECIFICATION
Total Thickness	ASTM D – 3767	mm	1.20 Min
HDPE Base Thickness	ASTM D – 3767	mm	0.70 Min
Typical Weight	Internal	Kg/m ²	1.50 ± 10%
Tensile Strength MD/TD	ASTM D – 412	MPa	21 Min
Elongation @ Break MD/TD	ASTM D – 412	%	400 Min
Puncture Resistance	ASTM D – E154	N	600 Min
Resistance to Hydrostatic Head	ASTM D – 5385	Mtr	60 Min
Lateral Water Migration	ASTM D – 5385	Mtr	60 Min
Peel Adhesion to Concrete	ASTM D – 903	N/m	880 Min
Lap Peel Adhesion Strength	ASTM D – 1876	N/m	800 Min
Low Temperature Flexibility (-25°C)	ASTM D – 1970	–	Pass
Dimensional Stability 6 hrs @ 70°C	ASTM D – 1204	%	1 Max

Typical test values represent average values from samples tested.



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PREPARATION

HYDROFAB[®] PEE membranes are supplied in rolls 1.2m/2m wide, with a selvedge on one side to provide self-adhered laps for continuity between rolls. The rolls of **HYDROFAB[®] PEE** membrane and Tape are interwoven with a disposable plastic release liner which must be removed before placing reinforcement and concrete.

It is important to create a sound and solid substrate to eliminate movement during the concrete pour. Substrates must be regular and smooth with no gaps or voids. Grout around all penetrations such as utility conduits, etc. for stability.

Horizontal Blinding — Monolithic concrete blinding or mud slab is preferred. The blinding must be free of loose aggregate and sharp protrusions. An angular profiled blinding is recommended rather than a sloping or rounded substrate. The surface does not need to be dry, but standing water must be removed.

Vertical Sheet Piling — Use concrete, plywood, insulation or other approved facing to sheet piling to provide support to the membrane. Board systems such as timber lagging must be close butted to provide support and not more than 12mm out of alignment.

PLACING

Peel off the release film from the self-adhesive side and start unrolling the membrane and press it to the surface. Smoothen the membrane from the center to the edges with a wooden press in order to remove any entrapped air. Furthermore, an iron roller shall be used for rolling on top of the applied membrane to ensure a proper and strong adhesion of the adhesive compound with the base surface. Side overlaps shall be a minimum of 50mm on the selvedge and end overlaps 100mm.

PROTECTION

The membrane shall be protected from damage due to ongoing site activities or from aggregates during backfilling by a tough, weather, warp and rot proof protection board (**MultiBOARD / MultiSTICK**). Alternatively, on horizontal areas the membrane



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can also be protected by laying a cement sand screed (50mm). **MultiBOARD** can be fixed with a double-sided adhesive bitumen tape (**MultiSTICK**).

CLEANING

All tools should be cleaned with water immediately after use.

STORAGE:

Store in dry, frost-free conditions at moderate temperature not **greater** than 25 °C.

PACKAGING:

Pack Size: 1.2 m x 20 m
2.0 m x 20 m

SAFETY DATA:

- **Irritating to eyes, respiratory systems and skin.**
- **Risk of serious damage to eyes.**
- **Keep out of reach of children. In case of contact with eyes, rinse immediately with plenty of clean water and seek medical advice.**
- **After contact with skin, wash immediately with plenty of clean water.**
- **Wear suitable protective clothing, gloves and eye/face protection.**

Please consult our technical department for further information.

WARRANTY

Multichem warrants Multiguard® HYDROFAB PEE to be free from manufacturing defects as defined in this warranty. Manufacturing defects are considered to be those defects that occur due to the quality of the ingredients or from the manufacturing process itself. This warranty does not include labor costs and other costs or expenses associated with the removal or installation of Multiguard® HYDROFAB PEE.

Because the Multichem does not perform the actual installation, it cannot be held responsible for the results of the application. Multichem specifically disclaims problems that occur due to weather conditions, structural movement, structural design flaws and application techniques.

This warranty is in lieu of all other warranties expressed or implied including the warranty of merchantability and fitness of purpose and of all other obligations or liabilities on Multichem part. Multichem neither assumes nor authorizes any person to assume for Multichem any liability in connection with the sale and installation of Multiguard® HYDROFAB PEE.

Because of constant improvement of manufacturing techniques and formulations, the Company reserves rights to change this datasheet and its contents without prior notice.

