

BLUSKY™ FLOWSHIELD PREBOND HDPE

Pre-Applied Fully Bonded HDPE Self Adhesive Membrane

Description

FLOWSHIELD PREBOND HDPE is a unique HDPE based self-adhesive membrane fully bonded sheet membrane comprising of a virgin HDPE layer, coated with a high bond strength adhesive, and covered with a release liner, for below ground waterproofing of reinforced concrete structures. It is loose laid onto prepared substrates or formwork before fixing reinforcement and casting concrete. The adhesive layer is activated when the concrete is poured on the surface and forms a permanent bond with the fresh concrete which will prevent the ingress of water around the structure. Reinforcement can be directly laid on top of the membrane and it does not require screed protection. **FLOWSHIELD PREBOND HDPE According to IS 16471: 2017**

Indicative Characteristics

Appearance/Colour	Off white
Thickness: HDPE film & composite	~0.80 mm & ~1.20 mm
Water Tightness, ASTM D5385	> 65 m of hydrostatic head
Adhesion in Peel, ASTM D903	≥ 900 N/m
Elongation, ASTM D412, %	≥ 600
Resistance to Static Puncture, ASTM E154	≥ 1150 N
Tensile Strength, ASTM D412	≥ 25 MPa (film)
Water Absorption, ASTM D 570	< 0.30%
Lap Peel Adhesion, ASTM D903	≥ 1500 N/m
Dimensional Stability, ASTM D 1204	< 0.1%
Ambient Air Temperature	+5 °C min. / +40 °C max.
Substrate Temperature	+5 °C min. / +40 °C max.
Packaging	2.4 m x 20 m rolls

Application Information

The following system products may be used:

- **Blusky™ Bond Tape 65** self-adhesive tape Ancillary products:

Accessories and complementary products are available to provide detailing and connection solutions

Domains of Application

- **FLOWSHIELD PREBOND HDPE** can be used for damp-proofing, waterproofing and concrete protection for basements, subway, tunnel and other below ground concrete structures against ground water ingress. Suitable for use on:
 - Reinforced concrete base slabs
 - Reinforced concrete walls with single and double faced formwork
 - Reinforced concrete footings and grade slab
 - Extension and reconstruction works
 - Prefabricated structures

Advantages

- Pre-applied: Fixed before placing reinforcement and casting concrete
- Can be applied on damp or green concrete, gives good bonding with fresh concrete
- High flexibility and crack-bridging capabilities
- No lateral water migration between the concrete structure and the membrane system
- High water tightness tested according to various standards
- Fully and permanently bonded to the reinforced concrete structure
- Not affected if the level of water table rises and falls
- Resistant to aggressive conditions in natural ground water and soil
- Easy to install with selvedge on one side to provide self-adhered laps for continuity between rolls
- Made up of non-recycled / virgin HDPE for long durability
- Temporarily resistant to weathering and UV exposure during construction
- VOC free, eco-friendly material
- Sound anti-puncture performance
- Adaptable to settlement and distortion

Application Tools

- Measuring tape
- Marking pen
- Razor knife
- Scissors
- Pressure roller
- Clean lint-free cloth
- Metal straight edge for cutting
- Hot air gun

The information contained in this technical data sheet is given to the best of our knowledge and the results from extensive testing in order to remain as objective as possible. However, it cannot, in any case be considered as a warranty involving our liability in case of misuse or any different use of our products from the "Application" paragraph of this technical data sheet. Some application tests should be carried out before using the product to ensure that the methods of use and conditions of application of the product are satisfactory. Our technical assistance is at the disposal of the users. Consult latest update of the technical data sheet on our website www.bluskyscpl.com

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Method of Application

Surface Preparation

Surface: It is essential 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.

Horizontal Surface: 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 surface: Use concrete, plywood, masonry or other approved facing to provide to level and even support to the membrane. Board systems such as timber lagging must be close butted to provide support and not more than 15 mm out of alignment.

Application

For Horizontal Substrate

- Place **FLOWSHIELD PREBOND HDPE** film side to the substrate with adhesive / coated side up facing towards the concrete pour.
- End laps should be staggered to avoid a build-up of layers. Leave plastic release liner in position until overlap procedure is completed.
- Accurately position succeeding sheets to overlap the previous sheet 75 / 80 mm along the marked selvedge.
- Ensure the underside of the succeeding sheet is clean, dry and free from contamination before attempting to overlap.
- Peel back the plastic release liner from between the overlaps as the two layers are bonded together.
- Ensure a continuous bond is achieved without creases and roll firmly with a heavy roller.
- Completely remove the plastic liner to expose the protective coating before subsequent works start.
- For Transverse overlap joints both side self-adhesive tape of 80 mm width is used.

Shelf Life & Storage

24 months from the date of manufacturing when stored in dry condition at a temperature range from +5°C to 40°C and away from direct sun light. All rolls must be kept vertically stacked.

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For Vertical Substrate

- Where no work space is available - mechanically fasten **FLOWSHIELD PREBOND HDPE** using fasteners appropriate to the existing substrate or mould with the adhesive / coated side facing towards the concrete pour.
- Install **FLOWSHIELD PREBOND HDPE** in any convenient length.
- Secure the top of the membrane using a metal flat of 25 mm x 1 mm such as a termination bar fixing 50 mm below the top edge.
- Fix through the selvedge so that the membrane lays flat and allows firmly rolled overlaps.
- Immediately remove the plastic release liner.
- Cover any additional fixing with a patch of tape.
- Ensure the underside of the succeeding sheet is clean, dry and free from contamination before attempting to overlap.
- Roll firmly to sure a water-tight seal.
- Ensure all overlap at roll ends and cut edges has a minimum 75 mm width.
- Also ensure that the area is clean and free from contamination. If necessary, wipe with a damp cloth before overlapping.

Precautions

- The membranes have no health hazard when used with our standard application recommendations.
- Store in cool, covered area.
- Rolls are to be kept in upright position
- Keep away from naked flame.
- Hot melt felt may cause serious burn injury, therefore, wear safety goggles, gloves and safety shoe during application.

Safety

- Wear hand gloves, safety shoes and safety goggles while using and handling the product.
- In case eyes or mouth are affected wash with plenty of clean water and seek medical treatment immediately.

Before use, refer to the Material Safety Data Sheet. The MSDS is available on www.bluskyscpl.com