

# WATERPROOFING WORK AT ROOF, TERRACE, MUMTY, LIFT MACHINE ROOM SLAB & FIRE REFUGE SLAB USING HIND HYDROFLEX PU

## APPLICATION INSTRUCTIONS

### STEP - 1

#### SURFACE PREPARATION

##### A. General Surface Preparation

1. The surface must be made sound and free from dust, dirt, and loose particles by thoroughly wire-brushing it.
2. If required, a grinder may be used. Clean the dust with a vacuum cleaner.
3. Wash the surface with water. Oils and grease must be removed by degreasing solvent.
4. **Crack Repair (If Required):** If any damage or existing cracks are found on the surface, repair by cutting a "V" groove and filling with 'Hind Patch R' Fiber Reinforced Repair Mortar (1 Kg Patch-R : 160 gm Water) over a bond coat of 'Hind Styrene BR' admixed with water and cement in the ratio of (1 part Hind Styrene BR : 1 part Water : 3 parts Cement).
5. **Chamfering (If Required):** Chamfer all junctions of the mother concrete slab and brick walls with HIND CRETE PLUS WPM modified cement sand mortar at the ratio of (1 part cement : 4 parts sand : WPM 5-10% weight of cement) after cutting a groove of size 25mm x 25mm.
6. **Pipe Inserts (If Required):** All pipe inserts in floors and walls should be properly sealed with HIND HSMC (1 Kg HSMC : 160 gm water) over a bond coat of epoxy bonding agent HIND BOND EBA modified cement sand mortar.

##### B. Product-Specific Requirements - Hind Hydroflex PU System

1. **Concrete Curing:** The concrete substrate must be subjected to curing for a minimum of 28 days before commencement of the waterproofing system.
2. The concrete surface over which the coating is to be applied must be structurally sound, clean, dry, and free from loose particles, oil, laitance, and other contaminants.
3. **Joint & Crack Sealing:** Hind PU Sealant must be used to fill in joints or cracks and to form a fillet at internal corners or around pipe penetrations before priming.
4. Ensure the surface is bone dry before application of the primer. Surface moisture content must be within acceptable limits.

### STEP - 2

#### PRIMING - HIND PRIME PU / HIND ERS PRIME

##### Application Procedure - Hind Prime PU

1. Hind Prime PU is a ready-to-use, single-component product - no mixing is required.
2. Apply Hind Prime PU in a single coat over the clean and dry surface using a brush or roller, ensuring uniform and complete coverage.
3. Apply at a coverage rate of 0.150 L / m<sup>2</sup> for a 50 micron thickness.
4. **Curing:** Allow the primer to air cure for 5-6 hours at 27°C ± 2°C. Touch dry in 3-4 hours, tack free in 7-8 hours, hard dry in 24 hours. The cured surface is then ready for application of the Hind HydroFlex PU topcoat.

##### Application Procedure - Hind ERS Prime (Alternative)

1. Mix Component-A (Resin) and Component-B (Hardener) in a 1:1 ratio by weight using a mechanical stirrer at 300-350 RPM for 2-5 minutes until a uniform, homogeneous mix is obtained.
2. Apply the mixed Hind ERS Prime uniformly on the well-prepared dry surface using a brush, roller, or airless spray equipment at 150-200 Kg / M<sup>2</sup> (DFT 200 microns).
3. **Curing before topcoat:** Allow the primer to cure and become tack-free (minimum 6 hours, preferably 24 hours) before applying the first coat of Hind HydroFlex PU.
4. Clean all tools immediately after use with Xylene, Toluene, or a suitable solvent.

### STEP - 3

#### WATERPROOFING COATING - HIND HYDROFLEX PU (2 Coats)

##### Mixing

1. Hind HydroFlex PU is a single-component, ready-to-use moisture-cure system supplied in metal buckets. Stir well before use to ensure uniform consistency. No mixing of components is required.

##### Application Procedure - First Coat

1. Ensure the primer coat (Hind Prime PU or Hind ERS Prime) has cured fully as per the curing schedule before applying Hind HydroFlex PU.
2. Apply the first coat of Hind HydroFlex PU using a roller and rubber squeeze, working it into the surface to achieve a seamless, self-leveling film.
3. Apply at a coverage rate of approximately 0.75 Kg per m<sup>2</sup>, being half of the total system requirement of 1.5 Kg per m<sup>2</sup> for 1mm combined thickness on smooth surfaces.
4. **Curing before second coat:** The first coat must be allowed to dry completely (touch dry in approximately 3 hours at 25°C, 65% R.H.) before application of the second coat.

##### Application Procedure - Second Coat

1. Confirm the first coat has dried completely before applying the second coat.
2. Apply the second coat of Hind HydroFlex PU uniformly over the first coat using a roller and rubber squeeze, applying in a direction perpendicular to the first coat to ensure uniform film build.
3. Apply at a coverage rate of approximately 0.75 Kg per m<sup>2</sup>, so that the combined two-coat system achieves a total of 1.5 Kg per m<sup>2</sup> for 1mm thickness on smooth surfaces.
4. **Full Curing:** Allow the complete two-coat system to cure for 7 days to achieve full chemical cure, zero permeability at 7 bar hydrostatic pressure, and full mechanical strength.

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## Protection & Overlay

- Overlay Options:** For any overlay (such as screed or tiling) above the **Hind HydroFlex PU** membrane, either of the following must be provided: (a) **Hind Bond 1707+** as a bonding agent, applied while still in tacky condition before laying the overlay, or (b) a Geotextile Membrane of minimum 120 GSM laid over the membrane as a separation layer before the overlay.
- Exposed Surfaces:** If the membrane is to be applied to an exposed surface (subject to direct sunlight/weathering), **Hind HydroFlex PU (E)** must be used as the top coat to provide UV resistance.

## Important Notes:

- Hind Hydro Flex PU** is flexible and withstands structural movement and crack-bridging, making it suitable for areas subject to minor substrate movement.
- The system is suitable for kitchens, toilets, balconies, terraces, planter boxes, RCC roofs, basement tanking, swimming pools, retaining walls, and sub-grade floors and walls.
- Service temperature range:** 0°C to 65°C VOC content is less than 50 g/L, making it an environmentally friendly product.
- Store **Hind HydroFlex PU** and primers in a cool, dry place away from direct sunlight. Do not expose or open containers to high humidity conditions. Shelf life: 12 months (**HydroFlex PU**), 6 months (**Hind Prime PU**).
- Both products are non-toxic; avoid ingestion. In case of skin contact, wash immediately with water. In case of eye contact, wash with water and seek medical advice.

## MATERIAL COVERAGE SUMMARY

Product / Layer	Pack Size	DFT / Thickness	Coverage
Hind Prime PU (Primer)	5 / 20 Ltr Container	50 Microns	0.150 L / m <sup>2</sup>
Hind ERS Prime (Alt. Primer)	2 / 4 / 20 Kg	200 Microns DFT	0.150-0.200 Kg / m <sup>2</sup>
Hind HydroFlex PU – 1st Coat	25 Kg Bucket	~0.5 mm	0.75 Kg / m <sup>2</sup>
Hind HydroFlex PU – 2nd Coat	25 Kg Bucket	~0.5 mm	0.75 Kg / m <sup>2</sup>
Total HydroFlex PU System (2 Coats)	-	1.0 mm	1.5 Kg / m <sup>2</sup>

