



## HIND HYDRO FLEX PU 200

### PRODUCT DATA SHEET

#### TWO COMPONENT POLYURETHANE BASED ANTIMICROBIAL COATING

##### DESCRIPTION

**Hind Hydro Flex PU 200** is two component polyurethane resin based antimicrobial, chemical and corrosion resistant coating system. It gets cured by cross-linking reaction between the two components.

##### USES

**Hind Hydro Flex PU 200** is recommended to be used in Pharma industry for coating / painting of walls and metallic structure. Cured film of **Hind Hydro Flex PU 200** is highly Chemical & UV resistance, hence the system is recommended for coating of metallic and concrete structure exposed to chemicals & direct sunlight. And also in saline corrosive environment.

##### ADVANTAGES

**Hind HydroFlex PU 200** coating offers as follows:

- Good weather resistance, colour stability, non-yellowing.
- Excellent adhesion to concrete, stone, wood, brick, FRP and metal surfaces.
- Excellent UV stability.
- Good abrasion & chemical resistance.
- Smooth / glossy finish.
- Does not support bacterial growth / antimicrobial.
- Seamless membrane formed on application.
- Frost & Water resistant.

##### AREA OF APPLICATION

**Hind Hydro Flex PU 200** system is ideal for coating of:

- Metal structures exposed to marine or saline atmospheres.
- Coating of concrete /metal bridges, flyovers, towers. etc.
- Coating for machine tools & equipment.
- Chemical & corrosion resistant coating in chemical industries like fertilizer, paper, textile, etc.
- Coating of pipelines, storage tanks.
- Coating of metal structures, etc.
- Sterile areas of Pharma plants, Hospitals, etc.
- Interior / exterior coating of buildings.

##### APPLICATION

###### Surface Preparation

Surface over which the coating is to be applied should be structurally sound, clean, dry, free from loose particles, oil, laitance and other containments and is very much essential for optimum finish and durability.

The moisture content of the surface over which **Hind Hydro Flex PU 200** is to be applied should not exceed 5%. The compressive strength of the substrate should be minimum of 25Mpa, and cohesive bond strength at least 1.5 Mpa. New concrete structures to be allowed to gain full compressive strength and dried for 28 days. Undulation and surface irregularities need to be smoothed by grinding process. Grinding dust and loose particles to be removed completely before application of the coating. It should always be ensured that the surface should not be washed with water, compressed air blowing process to be followed for cleaning.

### Mixing

**Component A** of **Hind Hydro Flex PU 200** to be stirred properly and then added to **Component B** at the stipulated mixing ratio and mixed with a low-speed mechanical stirrer for 3-5 mins. The mixing to be done very thoroughly and uniformly so that the mixture becomes fully homogenous before application.

### Application of coating

Apply first coat of **Hind Hydro Flex PU 200** on the prepared metal surface. Allow it to dry for minimum 4 hours at ambient temperature and then give a second coat. Allow second coat to dry for a minimum 72 hours at room temperature. Paint brush or roller can be used for coating application.

If application is done by Spraying it should always be in the area with good exhaust provision and using personal protection equipment such as goggles, breathing mask, etc. for spraying application 5 -10% of Thinner can be used.

### Cleaning of Tools

Tools and equipment after application can be cleaned with suitable solvent. Cleaning should be done before it starts to gel or harden.

## PHYSICAL PROPERTIES

Product Composition	Part A - PU Polyol (Resin) & Part B - Aliphatic Isocyanate (Hardener)
Aspect	Part A-Coloured Opaque Liquid, Part B – Colourless clear Liquid
Solid Content	Part A -58-63 % & Part B - 85-90%
Viscosity at 23 <sup>o</sup> C	Part A - 35-55 sec. & Part B - 60-80 sec.
Ash Content	Part A -28-33 %
NCO Content	Part B – 18-20 %

## PROPERTIES (MIXED MATERIAL)

Mixing Ratio	Part A : Part B :: 100:10 Parts by weight
Pot Life of Mixed Material	Approx. 4-6 hours
Touch Dry	1 hour
Hard Dry	4 hours

## PROPERTIES OF CURED MATERIAL

Film Thickness (2 Coats finish)	50-60 microns
Elongation at Break	37%
Tensile Strength	14 N/mm <sup>2</sup>
Adhesive Tensile Strength (On Concrete briquette)	1.6 N/mm <sup>2</sup>

**Curing schedule for specimens: 15 days at room temperature (25°C - 40°C)**

## COVERAGE

**5-6 Sq. Mtr/ Kg for two coats.**

## CHEMICAL RESISTANCE OF CURED MATERIAL

Resistance to various chemicals at ambient temperature (25 - 35°C), Immersion period: 40 days			
No.	Chemical	Concentration	Observation
1	Acetic acid	-	Resistant
2	Acetone	Concentrated	Non - resistant
3	Hydrochloric acid	20%	Resistant
4	Nitric acid	5%	Resistant
5	Phosphoric acid	30%	Resistant
6	Petrol	-	Non -resistant
7	Sulphuric acid	50%	Resistant
8	Salt water	15%	Resistant
9	Sodium hydroxide	30%	Resistant
10	White spirit	-	Non - resistant
11	Xylene	-	Non - resistant

## PACKING

Hind Hydro Flex PU 200 is available in

**Part A (Resin) : 20 Kg Metal Container.**

**Part B (Hardener) : 20 Kg. Plastic Container & 200 Kg MS Container.**

## STORAGE

**12 months** in original unopened container. The area of storage shall be covered protecting the material from direct sunlight. Do not expose or open container to high humidity conditions and stored in a cool and dry place.

## HANDLING PRECAUTION

Use gloves, goggles and barrier cream. Avoid contact with skin. Ensure adequate ventilation during application.

### Note:

- **Hindcon Chemicals** maintains a team of technically trained professionals to provide full support to your problems in construction, and recommend the correct product to suite your specific requirements. Our authorized applicators can attend your site for application of the products.
- The content of the Technical datasheet are for general information and guideline. The result shown here are generated from our laboratory or from our site experiences.
- Quality of our products are maintained as per ISO9001:2008 recommendations and continuous researches. The behavior can change as per the prevailing conditions at the time of applications.
- Since **HINDCON CHEMICALS LIMITED** has no control over the use to which the users may put the material, it does not claim or warrant that in the user's particular circumstances, the result that the user will obtain from the product will be the same as those described in this communication or that the user will find the information or recommendations complete, accurate or useful. The client must test and ascertain the safety and fitness for the product for use.
- The right to change the properties of the products is reserved with us. The proprietary rights of third parties must be observed. All orders are accepted subject to the terms of sale and delivery. Users must always refer to the most recent issue of the latest Data Sheet for the product concerned, copies of which will be supplied on request.

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