



HIND HYDROFLEX POLYUREA (H 90)

PRODUCT DATA SHEET

TWO COMPONENT, CHEMICAL RESISTANT, RAPID CURING POLYUREA BASED WATERPROOFING MEMBRANE

DESCRIPTION

Hind Hydroflex Polyurea (H90) is spray applied, two component (Part A –ISO and Part B – Amine), chemical resistant, rapid curing polyurea system, designed for waterproofing and as a protective coating which is modified by special polyacetal resin to upgrade abrasion resistance properties. It combines the advantage of seamless coating with a very long- life cycles and provide high durability. The system offers excellent surface properties and physical properties. It is highly reactive and can only be applied by special type two component spray equipment. The High pressure two-component spray machine equipped with impingement mixing have proven efficient and entirely adequate for sufficient blending and rapid dispensing of the polyurea raw materials. The catalyst-free isocyanate/amine reaction is normally rapid, proceeding to completion within a few seconds. Working Time (Gel Time) generally fall within the sub-five-second range, which requires specialized mixing and application equipment. It is for machine hot spray application only suitable for use in hot and tropical climatic conditions.

USES

Primer application is to be done (**Epoxy/Polyurethane based**) prior to application of **Hind Hydroflex Polyurea (H 90)** and is recommended to be applied to most substrates including concrete, galvanized steel, aluminum, UPVC, glass reinforced polyester, timber etc.

Construction: Flooring, Park decks, Bridge deck Construction & repair & Roof waterproofing Coating.

Industrial Applications: Power Plants, Industrial & Manufacturing facilities & Molded parts.

Transportation: Railcar Lining and Track Containment, Truck Bed Liners & Conveyor belt lining.

ADVANTAGES

- Fast Cure, tack free within minutes.
- Water Insensitive, little effect on adhesion or coating performance in event of weather variations.
- Excellent physical properties, high chemical resistance, good adhesion to many substrates.
- Applicable Temperature -15⁰C to +70⁰C
- 100% Solid with Zero VOC which eliminates the need for multi-coat application.
- Thermal stability performs in constant temperatures from -30⁰ C to +100⁰C
- Low yellowing, formulation flexibility, relatively unlimited application thickness.

SURFACE PREPARATION

Suitable substrate preparation and application of appropriate primer are most important. All substrates should be sound, clean, dry and free from oil, grease, all loose particles, laitance and other foreign containments which may cause improper adhesion. Undulation, honey combs, voids and blow holes are to be rendered smooth with **Hind Polymer mortars**. If fine cracks are identified, it is to be grouted with **Hind ERS 21/Hind ERS 21 (LV)** epoxy resin system. Application to be done only on dry surface.

HIND HYDROFLEX POLYUREA (H 90)
SAND BROADCAST
PRIMER
CONCRETE

APPLICATION

Prior to application of **Hind Hydroflex Polyurea (H 90)**, it is recommended that the surface to be primed with **Hind PU/Epoxy Primer @ 0.2-0.3 Kg/m²**. It is always advisable that proper high pressure spray pump (**GRACO make**) is used for application of **Hind Hydroflex Polyurea (H 90)**.

Waterproofing/Anto Corrosion of Concrete Structures : Hybrid (2.0 ~3.0mm)

Concrete Structures, Bridges Water Retaining Structures, Railway Structures, Underground Structures, Chemical Plants etc.

HIND HYDROFLEX POLYUREA (H 90) : 2.0~3.0mm
SAND BROADCAST : 0.5 ~1.5mm
Hind PU/Epoxy PRIMER : 50 µm
CONCRETE

PROPERTIES

Solid Content	100%
Density g/ml at 20 ⁰ C	1.1 ± 0.02 (Part A) , 1.07± 0.02 (Part B)
Mix Ratio (By volume)	1: 1 base
Viscosity cps at 20 ⁰ C	500± 100 (Part A) , 600 ± 200 (Part B)
Tensile Strength N/mm ²	>15
Shore A Hardness (sprayed)	>92
Elongation (%)	> 450%
Crack bridging	Width of crack > 2500 µm
Water tightness	Passes
Bond Strength (MPa) (Primed spec)	3.5 ± 0.5
Water Vapour Permeability (EN 1931)	18.7 g/(m ² X d)
Taber-Abrasion Resistance	0.4mg (1kg, CS10 wheels, 1000 cycles) 36mg (1kg, H22 wheels, 1000 cycles)
Application Temperature	70-75 ⁰ C
Gel Time (Secs)	5-25
Tack free Time (min)	1-2
Post curing time (Hours)	24

THICKNESS

Minimum dry film thickness of 1.5 mm is achieved @ approximately 1.8 Kg/m². The thickness of the membrane may vary depending on the application process.

PACKING

Available Pack A in 210 Kg & Pack B in 200 Kg Container.

STORAGE

Best before 12 months in original unopened container. Do not expose or open container to high humidity conditions.

HANDLING PRECAUTION

Hind Hydroflex Polyurea (H) is non-toxic. Wearing of Hand gloves, mask, shoes and Safety goggles is a must while using and handling the product.

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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