

HYPERDESMO®-POLYUREA-2K-HC

Product Data Sheet

Two-component, Sprayable, Hot-cure Polyurea For Waterproofing & Protection.

Description

HYPERDESMO®-POLYUREA-2K-HC is a two-component polyurea system, composed of 100% solids, for application by plural component spraying equipment.

It is highly elastic and has a polymerization profile specially formulated for enhanced adhesion. It is highly recommended for commercial and industrial applications that require high levels of abrasion resistance and impact strength.

Recommended For

Sealing of cementitious surfaces.

Waterproofing and Protection of:

- PU and polystyrene insulation foam,
- Floors,
- Roofs,
- Tanks and Pipes,
- Drinking water tanks.

Compliance

- **CE:** ETA 11/0016 liquid applied roof waterproofing kit
- Potable water tank waterproofing:
UNE-EN 12873-1/2014 RD 140/2003

Features & Benefits

- Quick curing-gel time 30 sec (unaffected by humidity and weather)
- Bubble and defect free membrane
- 100% solids, of which, more than 85% urea groups
- No plasticizers
- No heavy metal toxic catalysts
- Excellent thermal resistance, the product never turns soft. Max service temperature 80°C and max shock temperature 350°C
- Resistance in the cold: The film remains elastic even down to -40°C
- Excellent mechanical properties: High tensile and tear strength, high abrasion resistance
- Good chemical resistance
- Moisture vapor transmission: The film breathes so there is no accumulation of humidity under the coat
- Special primers available for almost every substrate

Limitations

- Not recommended for unsound substrates.
- Direct UV exposure requires the use of a top coat to retain the colour
- Recommended Top coats:
HYPERDESMO® ADY 810, HYPERDESMO® ADY-2K, HYPERDESMO® ADY-E & AQUASMART® TC 2K FLOOR PROTECT. The selection of the final topcoat should be done based on the final use of the surface. Please see individual TDS of the above list or contact our technical service department.

Application Prerequisites

Concrete substrate conditions (standard):

- Hardness: $R_{28} = 15$ MPa
- Humidity: $W < 10\%$
- Temperature: 5-35°C
- Relative humidity: $< 85\%$

Primer selection for special conditions and substrates: Please refer to the **Primer Selection Table**.

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Application Procedure

Clean the surface using a high-pressure washer, if possible. Remove oil, grease and wax contaminants. Cement laitance, loose particles, mould release agents, cured membranes must be removed. Fill surface irregularities with appropriate products.

- ✓ **Priming:** Apply the required primer following the guidelines above.
- ✓ **Application:** Drums of components should be pre-heated to 25° C prior to mixing or dispensing. In cold weather conditions, it is recommended that the drums be protected with a heating jacket prior to use. Please contact our technical service department for information on setting up plural component dispensing machines. Do not walk on membrane for 24 hours after application.

Consumption

- Minimum total consumption: **1.5-2.0 Kg/m²**.

Cleaning

Cured polyurea is very difficult to remove. Spillages should be kept to a minimum and cleaned up immediately. A special solvent is available for cleaning and flushing of the lines.

Shelf Life

Can be kept for minimum 12 months in the original unopened pails in dry places and at temperatures of 5-25°C.

Packaging

- 2X200 lt drums.

Safety Information

The MSDS (Material Safety Data Sheet) is available on request.

Technical Specifications

In liquid form (before application):

Property	Units	Method	Specification	
			Comp.A	Comp.B
Viscosity (Brookfield)	cP	ASTM D2196-86, @ 25°C	1,000-2,000	1,000-1,500
Specific weight	gr/cm ³	ASTM D1475 / DIN 53217 / ISO 2811, @ 20°C	1.00-1.10	1.05-1.15 Cured membrane: ~1.00
Gel time	Seconds	-	20-30	
Cure time	hours	-	24	

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Technical Specifications

The cured membrane:

Property	Units	Method	Specification
Service temperature	°C	-	-40 to 80
Max. temperature short time (shock)	°C	-	350
Hardness	Shore A Shore D	ASTM D2240 / DIN 53505 / ISO R868	90 40
Tensile strength at break @ 23°C	N/mm ²	ASTM D412 / EN-ISO-527-3	15
Percent elongation @ 23°C	%	ASTM D412 / EN-ISO-527-3	>400
Tear resistance	KN/m	-	>100
Water vapour transmission	gr/m ² .hr	ASTM E96 (Water Method)	0.8
Abrasion Resistance (Taber) CS17 WHEELS, 1000 REVS, 1000 gr	mg loss	ASTM D6040	<30

For more information on Hyperdesmo, Aquasmart & Hyperseal range of products and application methods

Please contact Alchimica Technical Service at info@alchimica.co.in

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