

## HYPERDESMO®-POLYUREA-2K-HC



### 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.

Minimum total consumption: 1.5-2.0 kg/m<sup>2</sup>.

#### RECOMMENDED FOR

Sealing of cementitious surfaces.

Waterproofing and protection of:

- PU and polystyrene insulation foam,
- floors,
- roofs,
- tanks,
- drinking water tanks
- pipes.

#### COMPLIANCE - CERTIFICATION

CE: ETA 11/0016 liquid applied roof waterproofing kit

Potable water tank waterproofing: UNE-EN 12873-1/2014 RD 140/2003

#### 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**

**AQUASMART® TC ELASTIC**

**AQUASMART® TC 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 department.

#### 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, 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.

## HYPERDESMO®-POLYUREA-2K-HC



### APPLICATION PREREQUISITES

#### Concrete substrate conditions (standard):

- Hardness:  $R_{28} = 15\text{Mpa}$ .
- Humidity:  $W < 10\%$ .
- Temperature:  $5\text{-}35\text{ }^{\circ}\text{C}$ .
- Relative humidity:  $< 85\%$ .

#### Primer selection for special conditions and substrates:

Please refer to the **Primer Selection Table**.

### 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  $25^{\circ}\text{C}$  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 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/m<sup>2</sup>**.

### 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.

### PACKAGING

2X200 lt drums.

### SHELF LIFE

Can be kept for minimum 12 months in the original unopened pails in dry places and at temperatures of  $5\text{-}25\text{ }^{\circ}\text{C}$ .

### 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, @ $25\text{ }^{\circ}\text{C}$	1,000-2,000	1,000-1,500
Specific weight	gr/cm <sup>3</sup>	ASTM D1475 / DIN 53217 / ISO 2811, @ $20^{\circ}\text{C}$	1.00-1.10	1.05-1.15
			Cured membrane: $\sim 1.00$	
Gel time	sec	-	20-30	
Cure time	hours	-	24	

## HYPERDESMO®-POLYUREA-2K-HC



### 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 <sup>2</sup> )	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 <sup>2</sup> .hr	ASTM E96 (Water Method)	0.8
Abrasion Resistance (Taber) CS17 WHEELS, 1000 REVS, 1000 gr	mg loss	ASTM D6040	<30

NONE OF OUR PUBLISHED INSTRUCTIONS AND SPECIFICATIONS, IN WRITING OR OTHERWISE, ARE BINDING EITHER IN GENERAL OR WITH RESPECT TO ANY THIRD PARTY RIGHTS, OR DO THEY RELIEVE INTERESTED PARTIES OF THEIR DUTY TO SUBJECT THE PRODUCT TO AN ADEQUATE EXAMINATION OF ITS SUITABILITY. IN NO EVENT WILL ALCHIMICA S.A. BE RESPONSIBLE FOR DAMAGES OF ANY NATURE, WHATSOEVER, RESULTING FROM THE USE OF OR RELIANCE UPON INFORMATION OR THE PRODUCT TO WHICH INFORMATION REFERS.

