HYPERDESMO®-D-2K

Product Data Sheet

Two-Component, Moderately Elastic Polyurethane Paint for Sealing, Waterproofing & Protecting Flooring and other Applications.

Description

HYPERDESMO®-D-2K is a two-component, solvent-free polyurethane fluid. It produces a strong membrane of moderate elasticity with outstanding adhesion to many types of surfaces. It is based on pure hydrophobic polyurethane resin plus special inorganic fillers, which result in excellent abrasion and chemical resistance properties.

When exposed to sunlight, directly or indirectly, **HYPERDESMO®-D-2K** has the tendency to discolour (yellowing). To preserve colours, use one of the following top coats always pigmented: **HYPERDESMO®-ADY, HYPERDESMO®-ADY-2K, PU-FINISH MATTE , AQUASMART® TC FLOOR PROTECT.**

Features & Benefits

- Very strong adhesion on almost any type of surface.
- Solvent-free: Ideal for application in closed areas.
- Excellent thermal resistance, the product never turns soft. Max service temperature 90°C, max shock temperature 200°C.
- Equally resistant to cold, down to -40°C.
- Outstanding mechanical properties, high tensile and tear strength, high abrasion resistance.
- Excellent chemical resistance.
- Absolutely non-toxic after full cure: Suitable for protection of drinking water tanks and use in applications where food contact is required.

Recommended For

Waterproofing and Protection of:

- Industrial floors,
- Car parks,
- Stadium stands,
- Tanks carrying chemicals,
- Effluent treatment tanks,
- Sewage tanks.

Application Prerequisites

Can be successfully applied on: Concrete, fibrous cement, mosaic, cement roof tiles, old (but well adhered) acrylic and asphalt coats, wood, corroded metal, and galvanized steel. For information about other substrates, please contact our technical service department.
The use of water based epoxy primer is recommended especially in the case of possible ascending humidity/negative pressure. Please refer to TDS of **AQUADUR** or **AQUASMART®-DUR** for application procedure.

Standard concrete substrate conditions :

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

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 also be removed. Fill surface irregularities with the necessary product.

Mixing: Pour component A into component B container and use a low speed (300 rpm) mixer.

Application: Apply two coats with roller or rubber squeegee. Do not leave more than 24 hours between coats.
Pot life: 20 minutes @ 25°C & 55% RH.

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Product Data Sheet

Limitations

Not recommended for

- Unsound substrates.
- Exposure to sunlight/UV, in which case a purely superficial discoloration occurs which does, nevertheless, not affect the waterproofing and protection capabilities of the membrane

Cleaning

Clean tools and equipment first with paper towels and then using SOLVENT-01. Rollers will not be re-usable.

Safety Information

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

Packaging

4.5 kg (3+1.5) and 15 kg (10+5).

Consumption

Minimum total consumption: **0.3-0.5 kg/m²**.

Shelf Life

Can be kept for 12 months minimum in the original unopened pails in dry places and at temperatures of 5-25°C. Once opened, use as soon as possible.

Technical Specifications

In Liquid Form (Before application):

Property	Units	Method	Specification
Viscosity (Brookfield) after mixing	cP	ASTM D2196-86, @ 25°C	1,500-2,500
Specific weight	gr/cm³	ASTM D1475 / DIN 53217 / ISO 2811, @ 20 °C	Comp. A (isocyanate): 1.20-1.25 Comp. B (polyols): 1.20-1.25
Tack free time, @ 25°C & RH 55% t	minutes	-	70-120
Recoat time	hours	-	4-24
Pot life @ 25°C & RH 55%	minutes	-	20-25

In Cured Form (After application):

Property	Units	Method	Specification
Service temperature	°C	-	-40 to 90
Max. temperature short time (shock)	°C	-	200
Hardness	Shore D	ASTM D2240/DIN 53505 / ISO R868	>60
Tensile strength at break @ 23°C	N/mm²	ASTM D412 / EN-ISO-527-3	>30
Percent elongation @ -25°C	%	ASTM D412	>50
Water vapour transmission	gr/m².hr	ASTM E96 (Water Method)	0.8

Adhesion test by ASTM D4541:

Substrate	Force	Result
Galvanised steel	>10 MPa	Pulley failure
Concrete	>4 MPa	Concrete failure
Wet concrete	>4 MPa	Concrete failure
Marble	>4 MPa	Marble failure

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Chemical Resistance

Exposed To	Result
Acetic acid 10%	tiny holes appear after 10 days
Acetone	soft after 10 days
Alcohol 10%	OK
Ammonia 10%	tiny holes appear after 20 days
Chloride 10%	OK
Chloride acid 10%	OK
Citric acid 10%	OK
Cresol	damaged after 5 days
Distilled water	OK
Drinking water	OK
Ethyl glycol acetate	OK
Fatty acids	OK
Formic acid 10%	tiny holes appear after 8 days
Gasoline	OK
Hydrogen peroxide 10%	OK
Lactic acid 25%	OK
Methylene chloride	damaged after 1 day
Nitric acid 10%	OK
Potassium hydroxide 10%	OK
Sea water	OK
Sodium hydroxide 10%	OK
Sodium hypochlorite 3%	OK
Sugar 30%	OK
Sulfuric acid 10%	OK
Tannic acid	OK
Xylene	OK

For more information on Hyperdesmo, Hyperseal & Aquasmart range of products and application methods
Please contact Alchimica Technical Service at **info@alchimica.co.in**

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CE 25 YEARS EXPECTED WORKING LIFE

ISO 9001
ISO 14001
OHSAS 18001
BUREAU VERITAS Certification