HYPERDESMO®-D-2K

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.

Apply with roller or rubber squeegee in two coats with total consumption of 0.3-0.5 kg/m^2.



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

COMPLIANCE – CERTIFICATION

CE certified acc. EN 13813

RECOMMENDED FOR

Waterproofing and protection of:
- industrial floors,
- car parks,
- stadium stands,
- tanks carrying chemicals,
- effluent treatment tanks,
- sewage tanks.

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.

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..

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 tech 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.

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Concrete substrate conditions (standard):

- Hardness: R_{28} = 15 MPa.
- Humidity: W < 10%.
- Temperature: 5-35 ºC.
- 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 ºC & 55% RH.

CONSUMPTION

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

CLEANING

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

PACKAGING

3.9 kg (3+0.9) and 13 kg (10+3).

SHELF LIFE

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

SAFETY INFORMATION

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

TECHNICAL SPECIFICATIONS

In liquid form (before application):

PROPERTY	UNITS	METHOD	SPECIFICATION
Viscosity (Brookfield) after mixing	cP	ASTM D2196-86, @ 25 ºC	1,500-2,500
Specific weight	gr/cm³	ASTM D1475 / DIN 53217 / ISO 2811, @ 20 ºC	Comp. A (isocyanate): 1.15-1.25 Comp. B (polyols): 1.15-1.25
Tack free time, @ 77 ºF (25 ºC) & RH 55%	hours	-	1-2
Recoat time	hours	-	4-24
Pot life @ 25 ºC & RH 55%	min	-	20-25

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The cured membrane:

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	Kg/cm^2 (N/mm^2)	ASTM D412 / EN-ISO-527-3	>300 (> 30)
Percent elongation @ -25 °C	%	ASTM D412	> 50
Water vapour transmission	$gr/m^2.hr$	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

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

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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

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ALCHIMICA S.A. 7 Lampsakou, Athens-GREECE
460-3-207/30.06.2015
EN 13813 2032 HYPERDESMO D-2K Protection of floors subject to heavy traffic, abrasion and chemical resistance for indoor applications
www.alchimica.com

ESSENTIAL CHARACTERISTICS	**PERFORMANCE**	**TEST STANDARD**	**HARMONISED TECHNICAL SPECIFICATION**
ABRASION RESISTANCE	35 mg loss (c17s/1000/1000)	ASTM D6040	EN 13813
REACTION TO FIRE	CLASS F	EN 13813	
AGGRESSIVE SUBSTANCES	NO	EN 13813	
CAPILLARY ABSORPTION AND PERMEABILITY TO WATER	W=0.03 Kg/{m^2 $xh^{0,5}$}	EN 1062-3	
ADHESION STRENGTH BY PULL OFF TEST	>2 N/mm^2	EN 13892-8:2002	

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