HYPERDESMO®-D

One Component Polyurethane Paint for Waterproofing & Protection.

DESCRIPTION

HYPERDESMO®-D is a one component polyurethane fluid which cures with the humidity in the atmosphere. It produces a very strong membrane with outstanding adhesion to many types of surfaces and excellent chemical and hydrolysis resistance properties.

Ideal for protecting metal structures against corrosion. Suitable for chemicals and effluent treatment tanks and sewage tubes. It is highly resistant to gases produced during waste water treatment, e.g. methane, hydrogen sulphide etc..

Apply with brush, roller or airless spraying in one or two coats with maximum consumption per coat of 150 gr/m^2. Thinning is not necessary.

When exposed to sunlight, directly or indirectly, HYPERDESMO®-D has the tendency to discolour (yellowing). To preserve colours, a protective topcoat of **HYPERDESMO®-ADY-E** (always pigmented) is required.

RECOMMENDED FOR

Waterproofing and protection of:

- Metal structures,
- concrete,
- industrial floors,
- car parks,
- refrigeration units,
- tanks for chemicals,
- waste water treatment tanks,
- pipes (inside).

LIMITATIONS

Not recommended for:

- Unsound substrates,
- application in thick coats,
- pigmenting, except for grey. For other colours, please refer to **HYPERDESMO®-P**.

FEATURES & BENEFITS

- Quick curing.
- Excellent adhesion on almost any type of surface.
- Completely hydrophobic.
- Excellent thermal resistance, the product never turns soft. Max service temperature 80 °C, max shock temperature 200 °C.
- Excellent mechanical properties, high tensile and tear strength, high abrasion resistance.
- Excellent chemical resistance.

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.

Priming:
On non-porous substrates: **AQUADUR**.
On glassy tiles: **PRIMER-T**.

Mixing:
Thinning not necessary.

Application:
Apply with brush, roller or airless spraying in one or two coats. Successive coats are applied before the previous is fully cured in order to maximize adhesion between layers.

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SAFETY INFORMATION

Contains volatile flammable solvents. Apply in well-ventilated, no smoking areas, away from naked flames. In closed spaces use ventilators and carbon active masks. Keep in mind that solvents are heavier than air so they creep on the floor. The MSDS (Material Safety Data Sheet) is available on request.

CONSUMPTION

- Maximum per coat: 150 gr/m^2.
- Maximum total: **300 gr/m^2**.
- When in continuous contact with chemicals, maximum total: 450 gr/m^2.

CLEANING

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

PACKAGING

1 lt, 5 lt, 20 lt.

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)	cP	ASTM D2196-86, @ 25 °C	110
Specific weight	gr/cm^3	ASTM D1475 / DIN 53217 / ISO 2811, @ 20 °C	0.98
Flash point	°C	ASTM D93, closed cup	28
Tack free time, @ 77 °F (25 °C) & 55% RH	hours	-	1-2
Recoat time	hours	-	2-3

The cured membrane:

PROPERTY	UNITS	METHOD	SPECIFICATION
Service temperature	°C	-	-40 to 80
Max. temperature short time (shock)	°C	-	200
Hardness	Shore A	ASTM D2240 / DIN 53505 / ISO R868	> 90

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Tensile strength at break @ 23 °C	Kg/cm^2 (N/mm^2)	ASTM D412 / EN-ISO-527-3	550 (55)
Percent elongation @ 23 °C	%	ASTM D412 / EN-ISO-527-3	> 10
Water vapor transmission	gr/m^2.hr	ASTM E96 (Water Method)	0.8
QUV Accelerated Weathering Test (4hr UV, @ 60 °C (UVB-Lamps) & 4hr COND @ 50 °C)	-	ASTM G53	passed (2000 hours)

Chemical resistance tests over 12-month period:

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

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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