

HYPERDESMO®-A510

100% aliphatic polyurethane liquid membrane for waterproofing & protection.

DESCRIPTION

HYPERDESMO®-A510 is a one component, low solvent content, aliphatic polyurethane liquid membrane which cures with the humidity in the atmosphere. It produces a non-yellowing, elastic strong film with excellent adhesion to different surfaces. Due to its aliphatic backbone, HYPERDESMO®-A510 does not require additional color protection with a topcoat. It is, in any color, including dark colors, completely UV resistant!

It is based on pure elastomeric hydrophobic polyurethane resin plus special inorganic fillers, which result in excellent mechanical, chemical, thermal, UV and natural element resistance properties.

Apply with brush, roller or airless spraying in two coats. Minimum total consumption: 1.2-1.5 kg/m².

RECOMMENDED FOR

Waterproofing and protection of:

- Gypsum and cement boards,
- polyurethane insulation foams,
- roofs,
- light roofing made of metal or fibrous cement,
- asphalt membranes,
- EPDM membranes,
- car parks,
- stadium stands.

LIMITATIONS

Not recommended for:

- unsound substrates,
- waterproofing of swimming pool surfaces in contact with chemically treated water.

FEATURES & BENEFITS

- 100% Aliphatic. No yellowing, no chalking or deterioration even in dark colours.
- Low solvent content - non-flammable.
- No additional topcoat protection necessary.
- Quick curing.
- Application in thick coats without bubble formation.
- No thinning is required but SOLVENT-01 may be used.
- Excellent thermal resistance, the product never turns soft. Max service temperature 80 °C, max shock temperature 200 °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.
- Non-toxic after full cure.
- Moisture vapor transmission: The film breathes so there is no accumulation of humidity under the coat.
- Special primers available for almost every substrate.

APPLICATION PREREQUISITES

Can be successfully applied on:

Concrete/steel reinforced concrete or otherwise, fibrous cement, mosaic, cement roof tiles, old (but well adhered) acrylic and asphalt coats, wood, corroded metal, galvanized steel. For information about other substrates, please contact our tech department.

Concrete substrate conditions (standard):

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

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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 the necessary product.

Priming:

Apply the required primer following the guidelines above.

Mixing:

Use a low speed (300 rpm) mixer. Add SOLVENT-01 5-10% for application by spraying.

Application:

Apply the material with roller or brush in two, at least, coats. Do not exceed 48 hours between coats. If more time passes (for example more than 4 days) or if you are unsure of the interlayer adhesion, use UNIVERSAL PRIMER-2K-4060.

CONSUMPTION

First coat: 0.6-0.8 kg/m².

Second coat: 0.6-0.9 kg/m².

Minimum total consumption: **1,2-1,5 kg/m²**.

CLEANING

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

PACKAGING

1 kg, 6 kg, 15 kg, 25 kg and 200 kg drums.

SHELF LIFE

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

PRECAUTIONS

HYPERDESMO®-A510 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.

TECHNICAL SPECIFICATIONS

The product in liquid form (before application):

PROPERTY	UNITS	METHOD	SPECIFICATION
Viscosity (BROOKFIELD)	cP	ASTM D4287, @ 25°C	4,000-6,000
Specific weight	gr/cm ³	ASTM D1475 / DIN 53217 / ISO 2811, @ 20°C	1.35-1.45
Tack free time, @ 77 °F (25 °C) & 55% RH	hours	-	3-5
Recoat time	hours	-	6-24

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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	80
Tensile strength at break @ 23 °C	Kg/cm ² (N/mm ²)	ASTM D412 / EN-ISO-527-3	>55 (>5.5)
Percent elongation @ 23 °C	%	ASTM D412 / EN-ISO-527-3	> 300
Percent elongation @ -25 °C	%	ASTM D412	200
Water vapour transmission	gr/m ² .hr	ASTM E96 (Water Method)	0.8
Tensile set (after 300% elongation)	%	ASTM D412	< 3%
QUV Accelerated Weathering Test (4hr UV, @ 60 °C (UVB-Lamps) & 4hr COND @ 50 °C)	-	ASTM G53	passed (3000 hours)
Hydrolysis (8% KOH, 15 days @ 50°C)	-	-	no significant elastomeric property change
Hydrolysis (H ₂ O, 30 day-cycle 60-100 °C)	-	-	no significant elastomeric property change
HCL (PH=2, 10 days @ RT)	-	-	no significant elastomeric property change

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