

HYPERDESMO®-H



ETA-18/1020

Novel, all weather rapid curing, single component polyurethane liquid membrane for waterproofing and protection based on Humidity-Activated-Accelerator Technology

DESCRIPTION

HYPERDESMO®-H is a unique single component polyurethane liquid membrane, based on the successful combination of **HYPERDESMO** and **ACCELERATOR-3000A**, which throughout the years has provided applicators with a solution for a fast curing, bubble free thick layer membrane. Our commitment to R&D and investment and our efforts to continuously upgrade our Chemical processing plant has allowed us to formulate a **HYPERDESMO®** with the **ACCELERATOR-3000A** incorporated in a blocked fashion, that upon contact with humidity is released and self-accelerates the curing of the material in a similar manner as the **ACCELERATOR-3000A**.

Due to its unique formulation, it cures rapidly to form a completely defect free membrane with excellent mechanical and elastomeric properties. This product is ideal for use during the winter months or in climates with relatively low humidity. Furthermore, the fact that the minimum consumption can now be achieved in only one coat, reduces labor cost and eliminates previous drawbacks of the **HYPERDESMO®+Accelerator** system such as short working time or problems associated with using **HYPERDESMO®** on its own in multilayer coats adhesion failure.

Apply with brush, roller or airless spraying
Minimum total consumption: **1.8-2.6** kg/m².

COMPLIANCE - CERTIFICATION

- CE: ETA-18/1020. See table below.
- ASTM C 836-95.

RECOMMENDED FOR

Waterproofing and protection of:

- gypsum and cement boards,
- polyurethane insulation foams,
- verandas and balconies,
- roofs,
- light roofing made of metal or fibrous cement,
- asphalt membranes,
- EPDM membranes.

LIMITATIONS

Not recommended for:

- Unsound substrates,
- Waterproofing of swimming pool surfaces in contact with chemically treated water.
- **Primer usage is necessary**, please refer to primer selection table or contact our technical department.



When used in dark colours for exposed use, a protective topcoat of **HYPERDESMO®-ADY-E** (always pigmented) is required.

In order to maintain long-term solar reflectance and better colour protection, it is beneficial to apply the aforementioned topcoat layer even when **HYPERDESMO® H** is applied in light colours.

FEATURES & BENEFITS

- Balanced curing with fast skin formation time of 2 hours.
- Bubble and defect free membrane.
- No thinning is required but SOLVENT-01 may be used.

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- Excellent weather and UV resistance. The white colour reflects much of the solar energy and so reduces the internal temperature of buildings considerably.
- Excellent thermal resistance, the product never turns soft. Recommended service temperature 90°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.
- 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. 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: $< 85\%$.

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 appropriate products.

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, brush or airless spray in one or two, 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, please contact our technical department.

CONSUMPTION

Minimum total consumption: **1.8-2.6 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.

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

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.

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CLASSIFICATION ACCORDING TO EOTA (EUROPEAN ORGANISATION OF TECHNICAL APPROVAL)

ETAG 005 – part 1 & part 6

HYPERDESMO® H System:

Geodesmo Primer + Hyperdesmo® H + Geotextile+ Hyperdesmo® ADY-E

ESSENTIAL CHARACTERISTICS	PERFORMANCE	TEST STANDARD	HARMONIZED TECHNICAL SPECIFICATION
External Fire Performance	Broof (t1) Broof (t4)	ENV 1187 EN 13501-5	ETAG 005-6: 2000
Reaction to Fire	Euroclass E	EN 13501-1	
Categorization by working life	W3	ETAG 005-6:2000, 4.3.3	
Categorization by climatic zones	M & S (Moderate and Severe)		
Categorization by imposed loads	P1-P4		
Categorization by roof slope	S1-S4		
Lowest Surface Temperature	TL4		
Highest Surface Temperature	TH4		
Release of Dangerous Substances	None Contained		
Slipperiness	No performance determined		

TECHNICAL SPECIFICATIONS

In liquid form (before application):

PROPERTY	UNITS	METHOD	SPECIFICATION
Viscosity (BROOKFIELD)	cP	ASTM D2196-86, @ 25 °C	2,000-5,000
Specific weight	gr/cm ³	ASTM D1475 / DIN 53217 / ISO 2811, @ 20°C	1.35-1.45
Flash point	°C	ASTM D93, closed cup	35
Tack free time, @ 77 °F (25 °C) & 55% RH	hours	-	2-3
Recoat time	hours	-	6-48

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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 A	ASTM D2240 / DIN 53505 / ISO R868	70
Tensile strength at break @ 23 °C	Kg/cm ² (N/mm ²)	ASTM D412 / EN-ISO-527-3	65 (6,5)
Percent elongation @ 23 °C	%	ASTM D412 / EN-ISO-527-3	> 400
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 (2,000 hours)

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