

HYPERDESMO® (CLASSIC VERSION)



ETA – 04/0082



Polyurethane liquid membrane for waterproofing & protection, easy application.

DESCRIPTION

HYPERDESMO® (CLASSIC VERSION) is the industry standard in waterproofing. For over 30 years, it has provided a simple solution for waterproofing and protection. It is a one component, low viscosity, polyurethane fluid that cures with the humidity in the atmosphere to produce a highly elastic membrane with strong adhesion to many types of surfaces.

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: 1.5-1.8 kg/m².

COMPLIANCE - CERTIFICATION

- CE: ETA-04/0082.
- BBA: Agrément Certificate 18/5567
See table below.
- ASTM C 836-95

RECOMMENDED FOR

Waterproofing and protection of:

- gypsum and cement boards,
- tiles (under),
- bathrooms,
- roofs,
- light roofing made of metal or fibrous cement,
- asphalt membranes.
- as the main waterproofing membrane in car park waterproofing systems.

LIMITATIONS

Not recommended for:

- unsound substrates (in some cases, application is possible with the use of geotextile reinforcement; please contact our technical department for consultations).
- waterproofing of swimming pool surfaces in contact with chemically treated water.



When **HYPERDESMO® (CLASSIC VERSION) DARK GREY** or other dark colours are used in exposed applications, a protective topcoat of **HYPERDESMO®-ADY-E** (always pigmented at the desired colour) or **HYPERDESMO®-ADY 500** is required.

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

FEATURES & BENEFITS

- No thinning is required but SOLVENT-01 may be used.
- 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. Max 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.
- Good chemical resistance.

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- Non-toxic after full cure.
- Water vapor transmission: The film breathes so there is no accumulation of humidity under the coat.

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, and 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: $5-35\text{ }^{\circ}\text{C}$.
- 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 appropriate products.

Priming:

Apply the required primer following the guidelines above.

Mixing:

Use a low speed (300 rpm) mixer. May optionally be thinned with 5-10% SOLVENT-01. For application by spraying (airless) thin with 10% SOLVENT-01.

Application:

Apply the material with roller or brush in two, at least, coats. Leave 6-24 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

First coat: $0.75-0.9\text{ kg/m}^2$.

Second coat: $0.75-0.9\text{ kg/m}^2$.

Minimum total consumption: **$1.5-1.8\text{ kg/m}^2$** .

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 $5-25\text{ }^{\circ}\text{C}$. 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) & BBA (BRITISH BOARD OF AGRÉMENT)

| REQUIREMENT | HYPERDESMO® | HYPERDESMO® + HYPERDESMO®-ADY |
|-------------------------------|---------------|----------------------------------|
| Minimum expected working life | W3 (25 years) | W2 (10 years) |
| Climatic zone | S (Severe) | |
| User load | P1 | P3 |
| Roof slope | S1-S4 | |
| Minimum surface temperature | TL3 (-20 °C) | |
| Maximum surface temperature | TH4 (90 °C) | |
| Exposure to external fire | Broof (t1,t4) | |
| Reaction to fire | Class E | |

TECHNICAL SPECIFICATIONS

The product in liquid form (before application):

| PROPERTY | UNITS | METHOD | SPECIFICATION |
|--|--------------------|--|---------------|
| Viscosity (BROOKFIELD) | cP | ASTM D4287, @ 25 °C | 3,000-6,000 |
| 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 | - | 4 |
| Recoat time | hours | - | 6-24 |

The cured membrane:

| PROPERTY | UNITS | METHOD | SPECIFICATION |
|-------------------------------------|-------|--------|---------------|
| Service temperature | °C | - | -40 to 90 |
| Max. temperature short time (shock) | °C | - | 200 |

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| | | | |
|--|--|-----------------------------------|--|
| Hardness | Shore A | 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 | >80 (>8) |
| Percent elongation @ 23 °C | % | ASTM D412 / EN-ISO-527-3 | > 500 |
| Water vapor transmission | gr/m ² .hr | ASTM E96 (Water Method) | 0.8 |
| Adhesion to concrete | Kg/cm ² (N/mm ²) | ASTM D4541 | > 20 (> 2) |
| QUV Accelerated Weathering Test (4hr UV, @ 60 °C (UVB-Lamps) & 4hr COND @ 50 °C) | - | ASTM G53 | passed (2000 hours) |
| Hydrolysis (8% KOH, 15 days @ 50°C) | - | - | no significant elastomeric property change |
| Hydrolysis (H ₂ O, 14-day cycle RT-100 °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 |
| Thermal resistance (100 days @ 80 °C) | - | EOTA TR011 | passed |

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