HYPERDESMO®

CE ETA – 04/0082

BBA APPROVAL INSPECTION TESTING CERTIFICATION CERTIFICATE 18/5567 18/5567

Polyurethane liquid membrane for waterproofing & protection.

DESCRIPTION

HYPERDESMO® is a one component polyurethane fluid that cures with the humidity in the atmosphere. It produces a highly elastic membrane with strong adhesion to many types of surfaces. It contains a small percentage of xylol, and may be thinned with SOLVENT-01 if necessary.

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, at least, coats with minimum total consumption of 1.5-1.8 kg/m^2.

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,
- polyurethane insulation foams,
- bathrooms,
- verandas and balconies,
- roofs,
- light roofing made of metal or fibrous cement,
- asphalt membranes,
- EPDM membranes,
- tanks,
- stadium stands,
- car parks,
- bridge platforms,
- irrigation channels.

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 used in dark colours for exposed use, 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®** is applied in light colours.

FEATURES & BENEFITS

- Excellent adhesion to almost any type of surface, with or without the use of special primers.
- 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 to cold: The film remains elastic even down to -40 °C.

HYPERDESMO®

CE ETA – 04/0082

BBA 18/5567

- Excellent mechanical properties, high tensile and tear strength, high abrasion resistance.
- Good chemical resistance.
- Non-toxic after full cure.
- Water vapor transmission: The film breathes so there is no accumulation of humidity under the coat.
- Special primers available for almost any substrate.
- Special additives, like **ACCELERATOR-3000A,** are available.
- Over 35 years of positive feedback worldwide.

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.

Standard concrete substrate conditions
Hardness: R_{28} = 15 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 substrate 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. Surface irregularities should also be filled with 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 with roller, brush or airless spraying (200-250 bar) in two, at least, coats. Do not exceed 48 hours between coats. Or if you are unsure of the interlayer adhesion, contact our technical department.

CONSUMPTION

First coat: 0.7-0.9 kg/m^2.
Second coat: 0.8-0.9 kg/m^2.
Minimum total consumption: **1.5-1.8 kg/m^2**.

CLEANING

Clean tools and equipment first with paper 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 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.

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 float near the floor. The MSDS (Material Safety Data Sheet) is available on request.

HYPERDESMO®

CE ETA – 04/0082

BBA APPROVAL INSPECTION TESTING CERTIFICATION CERTIFICATE 18/5567 18/5567

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

In liquid form (before application):

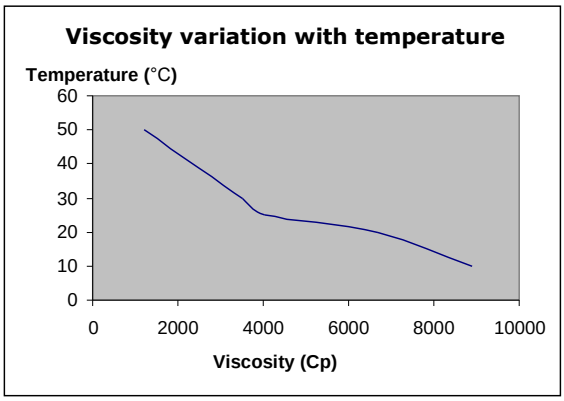
PROPERTY	UNITS	METHOD	SPECIFICATION
Viscosity (Brookfield)	cP	ASTM D4287, @ 25 °C	3,000-6,000
Specific weight	gr/cm^3	ASTM D1475 / DIN 53217 / ISO 2811, @ 20 °C	1.35-1.45
Flash point	°C	ASTM D93, closed cup	42
Tack free time, @ 77 °F (25 °C) & 55% RH	hours	-	6
Recoat time	hours	-	6-24

NOTE: Like all polyurethane materials, it is sensitive to temperature variations when considering viscosity. Viscosity measurements are carried out at 25 °C according to ASTM D2196-86. Viscosity increases inversely with temperature.

HYPERDESMO®

CE ETA – 04/0082

BBA 18/5567



Temperature (°C)	Viscosity (Cp)
10	8900
20	6700
25	4050
30	3500
50	1200

In cured form (after application):

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/cm² (N/mm²)	ASTM D412 / EN-ISO-527-3	>80 (>8)
Elongation @ 23 °C	%	ASTM D412 / EN-ISO-527-3	> 500
Water vapor transmission	gr/m².hr	ASTM E96 (Water Method)	0.8
Adhesion to concrete	kg/cm² (N/mm²)	ASTM D4541	> 20 (> 2)
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 (2000 hours)
Hydrolysis (8% KOH, 15 days @ 50°C)	-	-	no significant elastomeric property change
Hydrolysis (H_2O, 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

HYPERDESMO®

CE

ETA – 04/0082

BBA APPROVAL INSPECTION TESTING CERTIFICATION CERTIFICATE 18/5567

18/5567

NONE OF OUR PUBLISHED INSTRUCTIONS AND SPECIFICATIONS, IN WRITING OR OTHERWISE, ARE BINDING EITHER IN GENERAL OR WITH RESPECT TO ANY THIRD PARTY RIGHTS, OR DO THEY RELIEVE INTERESTED PARTIES OF THEIR DUTY TO SUBJECT THE PRODUCT TO AN ADEQUATE EXAMINATION OF ITS SUITABILITY. IN NO EVENT WILL ALCHIMICA S.A. BE RESPONSIBLE FOR DAMAGES OF ANY NATURE, WHATSOEVER, RESULTING FROM THE USE OF OR RELIANCE UPON INFORMATION OR THE PRODUCT TO WHICH INFORMATION REFERS. ALCHIMICA S.A. RESERVES THE RIGHT TO CHANGE AT ANY TIME THE PROPERTIES OF ITS PRODUCTS. PLEASE REFER TO THE CURRENT VERSION OF THE TECHNICAL DATA SHEET, AVAILABLE FROM OUR WEB SITE WWW.ALCHIMICA.COM

