

HYPERDESMO®-PB-2K



ETA-10/0095

Two-component - 1:1, polyurethane (A): bitumen (B), by volume - liquid membrane for waterproofing & protection.

DESCRIPTION

HYPERDESMO®-PB-2K is a fast-curing, two-component, bitumen-extended polyurethane fluid. It produces a highly elastic membrane with strong adhesion to many types of surfaces and excellent mechanical and chemical resistance properties.

It is based on a pure elastomeric hydrophobic polyurethane resin extended with chemically polymerised virgin bitumen.

Apply with brush, roller, spatula.

Minimum consumption: 1.5 lt/m².

COMPLIANCE - CERTIFICATION

- CE: ETA-10/0095
- ASTM C836-95
- root resistance

RECOMMENDED FOR

Waterproofing and protection of:

- basements,
- foundations,
- roofs (inverted roof insulation build ups),
- green roofs and flower pots,
- gypsum and cement boards,
- polyurethane insulation foams,
- asphalt membranes,
- bathrooms (under tiles),
- verandas and balconies (under tiles),
- light roofing made of metal or fibrous cement,
- non-potable water tanks,
- bridge platforms,
- "cut-and-cover" tunnels,
- irrigation channels.

LIMITATIONS

Not recommended for unsound substrates or UV-exposed applications.

FEATURES & BENEFITS

- Components easily mixed 1:1 by volume.
- Fast curing.
- Thick, bubble-free, membrane possible.
- Being a two-component product means that the quantities not mixed can be stored for later use.
- Its low modulus gives it excellent substrate crack-bridging properties.
- Excellent adhesion on almost any surface, with or without the use of special primers.
- 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 elongation, tensile and tear strength, high abrasion resistance.
- Good chemical resistance.
- Good water vapor barrier properties.
- Can also be used as a **joint sealant**.

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

- Strength: C20/25.
- Humidity: $W \leq 5\%$.
- 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, etc. must be removed.

Priming:

Choose primer from the **Primer Selection Table** and follow the application instructions given on its prospectus.

Mixing:

Mix **equal** volumes of the two components manually or with a low speed (300 rpm) mixer. Apply mixed quantities immediately. Pot life (of mix): **30-45 min** at 20 °C.

Crack bridging:

Apply **HYPERDESMO®-PB-2K** (or **HYPERDESMO®-PB-1K**) locally over any cracks larger than 1 mm before the main coat.

Application:

Apply the material with brush, roller or spatula at a min consumption of 1.5lt/m² in a single coat.

CONSUMPTION

Minimum consumption: **1.5 lt/m²**.

CLEANING

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

PACKAGING

2x5 lt, 2x20 lt and 2x200 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. Cap tins air tightly in order to store unused quantities.

PRECAUTIONS

Contains a small quantity of 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

In liquid form (before application):

PROPERTY	UNITS	METHOD	SPECIFICATION
Viscosity (Brookfield) Comp. A: Resin Comp. B: Asphaltic mix	cP	ASTM D4287, @ 25 °C	1,000-1,500 6,000-11,000
Viscosity (Brookfield) of the mixture	cP	ASTM D2196-86, @ 25 °C	3,500-4,500
Specific weight of the mixture	gr/cm ³	ASTM D1475 / DIN 53217 / ISO 2811, @ 20 °C	0.95-1
Flash point	°C	ASTM D93, closed cup	42
Tack-free time, @ 77 °F (25 °C) & 55% RH	hours	-	1-2
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	35
Tensile strength at break @ 23 °C	Kg/cm ² (N/mm ²)	ASTM D412 / EN-ISO-527-3	> 20 > (2)
Percent elongation @ 23 °C	%	ASTM D412 / EN-ISO-527-3	> 2000
Tensile set (after 300% elongation)	%	ASTM D412	< 1%
Adhesion to concrete	Kg/cm ² (N/mm ²)	ASTM D4541	> 20 (> 2)
Thermal resistance (200 days @ 80 °C)	-	EOTA TR011	passed
QUV Accelerated Weathering Test (4hr UV, @ 60 °C (UVB-Lamps) & 4hr COND @ 50 °C)	-	ASTM G53	passed (1000 hours)
Chemical resistance (Sodium Hypochlorite NaOCl 5% 10 days)	-	-	unaffected
Hydrolysis resistance (Potassium Hydroxide 8% 10 days @ 50 °C)	-	-	unaffected
H ₂ O absorption (10 days)	-	-	< 0.9%

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ALCHIMICA S.A. 7 Lampsakou, Athens - GREECE
CPR-10/0095
EAD 030350-00-0402 1219 HYPERDESMO® PB-2K Liquid Applied Roof Waterproofing Kit, based on Polyurethane
www.alchimica.com

Essential characteristics	Performance	Harmonized technical specification
Minimum thickness	1.5mm	EAD 030350-00-0402
Water vapor diffusion resistance factor (μ)	~9000	EAD 030350-00-0402
Resistance to wind loads	>50KPa	EAD 030350-00-0402
Resistance to plant roots	NPD	EAD 030350-00-0402
Statement on dangerous substances	Does not contain any	EAD 030350-00-0402
Resistance to slipperiness	NPD	EAD 030350-00-0402
External fire performance	NPD	EAD 030350-00-0402
Fire reaction	Class F	EAD 030350-00-0402
Expected working life	W3 (25 years)	EAD 030350-00-0402
Climatic zone of use	S (Severe)	EAD 030350-00-0402
User loads	P3	EAD 030350-00-0402
Roof slopes	S1 to S4	EAD 030350-00-0402
Minimum surface temperatures	TL3 (-20°C)	EAD 030350-00-0402
Maximum surface temperatures	TH2 (60 °C)	EAD 030350-00-0402

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