

HYPERDESMO® ZERO

100% SOLIDS Polyurethane liquid membrane for waterproofing & protection

DESCRIPTION

HYPERDESMO® ZERO is a 100% solids, 1-component, and moisture curing polyurethane liquid membrane. The product cures to produce a very tough, hydrophobic and UV resistant coating. The product is odorless and highly recommended for waterproofing of indoor spaces.

Apply with rubber squeegee, or roller in one or two coats. Minimum total consumption: 1.5 kg/m².

COMPLIANCE – CERTIFICATION

HYPERDESMO®-ZERO is **CE** certified: **2928-CPR-111** according to the European Standard **EN 1504-2: 2004**.

RECOMMENDED FOR

Waterproofing and protection of:

- bathrooms,
- roofs,
- light roofing made of metal or fibrous cement,
- Asphalt membranes.
- 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.



For exposed use, a protective topcoat must be used when dark colours are required.

During extreme low temperatures/humidity, curing is slowed significantly; See 2-component version HYPERDESMO COLD CURE POLYUREA 2K ZERO.

FEATURES & BENEFITS

- Zero VOC
- Very High mechanical properties
- Low temp flexibility
- Excellent adhesion, no shrinkage
- 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.

Standard concrete substrate conditions

- Strength: C20/25.
- Humidity: W ≤ 5%.
- Temperature: 5-35 °C.
- Relative humidity: < 85%.

HYPERDESMO® ZERO

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.

Application:

Apply the material with roller or brush in two, at least, coats. Leave 12-24 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: 0,8-1 kg/m².

Second coat: 0.8-1 kg/m².

Minimum total consumption: **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

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.

SAFETY INFORMATION

HYPERDESMO® ZERO is free of solvents. Nevertheless, you are advised to observe the standard safety rules. 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 D2196-86, @ 25 °C	3000-5000
Specific weight	gr/cm ³	ASTM D1475 / DIN 53217 / ISO 2811, @ 20°C	1,4
Tack free time, @ 77 °F (25 °C) & 55% RH	hours	-	8-12
Recoat time	hours	-	12-24

HYPERDESMO® ZERO

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	80
Tensile strength at break @ 23 °C		(N/mm ²)	ASTM D412 / EN-ISO-527-3	>10
Percent elongation @ 23 °C		%	ASTM D412 / EN-ISO-527-3	> 450
QUV Accelerated Weathering Test (4hr UV, @ 60 °C (UVB-Lamps) & 4hr COND @ 50 °C)		-	ASTM G53	passed (2000 hours)
Water vapor transmission		gr/m ² .hr	ASTM E96 (Water Method)	0.8
Adhesion to concrete		Kg/cm ² (N/mm ²)	ASTM D4541	> 30 (> 3)
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

HYPERDESMO® ZERO

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26
ALCHIMICA S.A. 7 Lampsakou Str, ATHENS – GREECE
2928-CPR-111
EN 1504-2: 2004 2928 HYPERDESMO® ZERO Concrete surface protection systems - Coating
www.alchimica.com

Essential characteristics	Performance	Harmonized technical specification
CO ₂ permeability, m	$S_D > 50$	EN 1504-2:2004
Water vapor permeability, m	$S_D < 5$ for class I	
Capillary absorption & permeability to water, kg/m ² .h ^{0,5}	$W < 0.1$	
Adhesion strength by pull-off test, N/mm ²	≥ 2.0 with trafficking	
Reaction to fire	Class F	

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