

HYPERDESMO®-2K-W

Two-Component, Solvent-free, Polyurethane Coating for Flashing and Tank Waterproofing & Protection.

DESCRIPTION

HYPERDESMO®-2K-W is a two-component, solvent-free, thixotropic coating, based on high-quality elastomeric polyurethane resins. After polymerization, it produces a strong, elastic, hydrophobic membrane suitable for waterproofing and protection. It is recommended for waterproofing of water tanks. It has been certified for use in potable water tanks (more details are available on request from our technical department).

Apply with roller in two coats with consumption per coat of 0.7 kg/m². On the tank floor, a single coat of 1.4 kg/m² is sufficient.



On tank surfaces with direct exposure to sunlight, **HYPERDESMO®-2K-W** will discolor. This is purely visual; it does not affect the performance of the product.

COMPLIANCE - CERTIFICATION

It has been certified by the **O.T.E.C. Institute** (Barcelona, Spain) for waterproofing of drinking water tanks, in accordance with the EU guideline 98/83/EC.

CE certified acc. **EN 1504-02**

No: 2928-CPR-55 (HYPERDESMO 2KW).

CE certified acc. **EN 14891:2012** (type RM 02P)

No:1020-CPR-020052783 (HYPERDESMO 2KW)

See tables below

HYPERDESMO®-2K-W is also certified for use in food processing facilities' flooring applications, complying with the overall framework of **Regulation (EC) No. 1935/2004**. Migration compliance is verified in accordance with the **DIN EN 1186-2, DIN EN 1186-3, EN 1186** and **EN 13130-1** standards, utilizing the specialized

coating test methods outlined in **CEN/TS 14234** and **CEN/TS 14235**.

RECOMMENDED FOR

Waterproofing and protection of:

- Water tanks made of concrete/steel reinforced concrete or otherwise, steel or other material,
- prefabricated concrete tanks,
- drinking water tanks,
- tanks with wall movement due to expansion and contraction.

FEATURES & BENEFITS

- Excellent adhesion on almost any type of surface.
- Being solvent-less, it can easily be applied in closed spaces.
- Extremely hydrophobic and hydrolysis resistant.
- Wide working temperature range: -40 °C to 90 °C.
- Good chemical resistance.
- Certified for potable water tanks, in accordance with the latest European Union requirements.
- The best value, performance-to-cost, solution for water tanks.
- Special primers, topcoats and coloring pastes are available.

APPLICATION PROCEDURE

Standard concrete substrate conditions

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

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(The following guidelines are for **concrete tanks**. For information about tanks made of other materials, please contact our support department.)

Clean the surface using jet water, if possible. Remove oil, grease and wax contaminants. Cement laitance, loose particles, mould release agents, cured membranes must be removed. Fill surface irregularities with **HYPERSEAL[®]-25LM-S** or **HYPERSEAL[®]-EXPERT**.

Priming:

Apply **AQUADUR**, **AQUASMART[®]-DUR** primer particularly in case of negative pressure (e.g. in underground tanks). As soon as the primer has cured, seal cracks, holes and the edges of the tank walls and floor with **HYPERSEAL[®]-25LM-S** or **HYPERSEAL[®]-EXPERT**, the polyurethane mastic.

Mixing:

Mix the two components using a low speed (300 rpm) mixer.

Application:

Apply with roller in two coats with consumption per coat of 0.7 kg/m². On the tank floor, a single coat of 1.4 kg/m² is sufficient.

POT LIFE

Pot life once the two components have been mixed is 30 min in 20 °C. It can be increased by:

1. Keeping the mix in a cooler place, away from the sun,
2. Pouring the mix on the floor, in order for it to cool down, and then spreading it,
3. Pouring the mix in a separate wide and shallow container.

CONSUMPTION

Consumption per coat: 0.7 kg/m².

Minimum total consumption: **1.4 kg/m²**.

CLEANING

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

PACKAGING

9 kg (comp. A 1.5 kg, comp. B 7.5 kg) and 24 kg (comp. A 4 kg, comp. B 20 kg).

COLOUR

- RAL 9001 (off-white).

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

Although it does not contain volatile substances, it is highly recommended that closed spaces be well ventilated to recycle the air in which people will work. The possibility of methane gas coming from the ground and being trapped in the tank should also be considered. The MSDS (Material Safety Data Sheet) is available on request.

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TECHNICAL SPECIFICATIONS

In liquid form (before application):

PROPERTY	UNITS / METHOD	COMPONENT A (HARDENER)	COMPONENT B (RESIN)
Form	-	liquid	thixotropic paste
Viscosity (Brookfield) of the mixture	cP / ASTM D2196-86, @ 25 °C	15,000-20,000	
Specific weight	gr/cm ³ / ASTM D1475 / DIN 53217 / ISO 2811, @ 20 °C	1.20-1.25	1.40-1.50
Solid residue	%	100	100
Mixing ratio	by weight	1 part	5 parts
Recoat time	hours	6-48	
Pot life @ 25 °C	min	20-30	

In cured form (after application):

PROPERTY	UNITS	METHOD	SPECIFICATION
Service temperature	°C	-	-40 to 90
Hardness	Shore D	ASTM D2240 / DIN 53505 / ISO R868	> 40
Elongation at break	%	ASTM D412	> 100
Water absorption	%	DIN 53495	< 0.5
Adhesion to concrete	Kg/cm ² (N/mm ²)	ASTM D4541	20 (2)

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ALCHIMICA S.A. 7 Lampsakou, Athens-GREECE
2928-CPR-55
EN 1504-2:2004 2928 HYPERDESMO 2KW 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
Permeability to water vapor, m	S _D <5 Class I	
Capillary absorption, kg/m ² ·h ^{0.5}	w<0.1	
Adhesion strength by pull-off test, N/mm ²	≥1.5	
Abrasion resistance, mg	<3000	
Impact resistance, N.m	≥4 Class I	
Reaction to fire	Euroclass F	


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ALCHIMICA S.A. 7 Lampsakou, Athens-GREECE
1020-CPR-020052783
EN 14891:2012 1020 HYPERDESMO 2KW Reaction resin, liquid-applied water impermeable product for use beneath ceramic tiling bonded with adhesives www.alchimica.com

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Essential characteristics	Performance	Requirement	Harmonized technical specification
Water tightness	No penetration	No penetration	EN 14891:2012
Crack bridging ability under standard conditions (23°C)	3.15 mm	≥0.75 mm	
Crack bridging ability at low temperatures (-5°C)	2.31 mm	≥0.75 mm	
Crack bridging ability at low temperatures (-20°C)	1.59 mm	≥0.75 mm	
Initial bond strength	1.80 N/mm ²	≥0.5 N/mm ²	
Bond strength after water immersion	1.35 N/mm ²	≥0.5 N/mm ²	
Bond strength after heat ageing	2.22 N/mm ²	≥0.5 N/mm ²	
Bond strength after freeze-thaw cycles	1.41 N/mm ²	≥0.5 N/mm ²	
Bond strength after contact with lime water	1.40 N/mm ²	≥0.5 N/mm ²	
Bond strength after contact with chlorinated water	1.40 N/mm ²	≥0.5 N/mm ²	

Tensile adhesion strength values determined with using HYGROSMART ADHESIVE ULTRA-2K (type C2 cementitious adhesive).

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