AQUADUR

Two-component, water based, epoxy coating / primer.

DESCRIPTION

AQUADUR is a two-component, water based, epoxy coating. It has a track record of more than 20 years of successful use as primer for the **HYPERDESMO®** line of products, as well as other ALCHIMICA™ polyurethane based products.

It is certified as "Class III" **water and humidity barrier**, which makes it ideal for applications subject to negative pressure / rising humidity.

An easy to use and safe (zero VOC) product with many applications besides priming.

COMPLIANCE - CERTIFICATION

- Water and humidity barrier: Class III.

RECOMMENDED FOR

Use as:

- Primer in applications with rising humidity / negative pressure (tanks, pools, foundations etc.),
- primer for other systems, e.g. epoxy or polyurethane based, cementitious,
- sealing coat for concrete,
- adhesive layer between old and new concrete,
- water / humidity barrier.

FEATURES & BENEFITS

- Highly effective water/humidity barrier.
- Easy application (water based).
- Low-odor, safe and non-flammable (zero VOC).
- Suitable for application in closed spaces.
- Easy clean-up.
- Strong adhesion even on damp or green concrete. Also on iron, galvanized steel, aluminium, glass and wood.
- Good mechanical properties and abrasion resistance.

APPLICATION PROCEDURE

Mixing:

Mix the two components well. Add water 10-30%. Stir manually or using a low speed (300 rpm) mixer.

Application:

- As primer –

  Application in thin coats only. Apply with roller in one or two coats with total consumption of 150 gr/m^2.
- As water/humidity barrier –

  Apply with roller in three coats with total consumption of 600 gr/m^2.

Recoat time cannot be determined in terms of hours since it is highly dependent on weather conditions: It can be as low as 5 hours during summer and as high as 24 hours during winter. Use the following rule of thumb to determine when recoating should take place. Recoat (with AQUADUR or HYPERDESMO®) once the colour on the current coat goes from milky white to transparent. Also check that the current coat has hardened to the degree where it can no longer be punctured by finger nail.

- Do not exceed the stated consumption numbers as this will affect adversely its adhesion and durability.
- Pot life of mixture is 1 hour maximum at 25 °C.
- Do not apply when temperature is below 10 °C.
- Hot concrete should be wetted before application.

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CONSUMPTION

- As primer – Apply in one or two thin coats with total consumption of **150 gr/m²**.
- As water/humidity barrier – Apply in three coats with total consumption of **600 gr/m²**.

CLEANING

Clean tools and equipment first with paper and then using SOLVENT-01. Under no circumstances should they be re-used to mix/apply polyurethane products.

PACKAGING

Transparent: 4 kg (1 + 3 kg) and 20 kg (5 + 15 kg).
White: 5 kg (1 + 4 kg) and 20 kg (4 + 16 kg).

Other colours available on request.

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

AQUADUR is free of solvents. Nevertheless, you are advised to observe the standard safety rules: Apply in well-ventilated, no smoking areas, away from naked flames. In closed spaces use ventilators and carbon active masks. The M.S.D.S. (Material Safety Data Sheet) is available on request.

TECHNICAL SPECIFICATIONS

In liquid form (before application, after mixing):
Component A – colourless.
Component B – transparent or coloured (as required).
(In transparent, the mixture becomes white but, when fully cured, membrane is transparent again.)

PROPERTY	UNITS	METHOD	SPECIFICATION
Viscosity (Brookfield)	cP	ASTM D2196-86, @ 25 °C	3,500
Specific weight	gr/cm³	ASTM D1475 / DIN 53217 / ISO 2811, @ 20 °C	1.0
Mixing ratio of transparent AQUADUR	A:B, by weight	-	1:3
Mixing ratio of coloured AQUADUR	A:B, by weight	-	1:4
Tack free time, @ 77 °F (25 °C) & 55% RH	hours	-	5-6
Full cure	days	-	7

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Recoat time	-	-	Recoat once the colour on the current coat goes from milky white to transparent. Also check that the current coat has hardened to the degree where it can no longer be punctured by finger nail
Pot life	hours	-	1 @ 25 °C

In cured form (after application):

PROPERTY	UNITS	METHOD	SPECIFICATION
Service temperature	°C	-	10-40
Water vapor transmission	$gr/m^2.24hr$	EN ISO 7783-2	3.9 Class III (Low, < 15)
Water transmission	$kg/m^2.hr^{0.5}$	NF EN 1062-3	0.003-0.006 Class III (Low, < 0.1)
Adhesion to concrete	kg/cm^2 (N/mm^2)	ASTM D4541	> 30 (> 3)
Resistance to friction	Gr	ASTM D4541 (Taber 503, CS17, 1.0 kg, 1,000 revs.)	$120 * 10^{-3}$

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