

VAPOSHIELD

Waterproofing epoxy-cement vapor barrier

Waterproofing epoxy liquid vapor barrier, three-component, with high resistance to both positive and negative pressure. Suitable for swimming pools waterproofing and for the realization of industrial floors, ground screeds, *Decorkrete* micro-concrete systems and as a primer before the application of *Decork* on horizontal and verticals surfaces. The product is formulated with a special epoxy resin (part A), a catalyst (part B) and special cement (part C).

BENEFITS

- Highly resistant to negative and positive pressure.
- Suitable for epoxy, polyurethane and concrete micro-topping systems.
- Ideal for moist concrete floorings.
- Suitable for floorings not provided with vapor barrier, before the application of *Diasen* resin coatings.
- Excellent filling and consolidating properties.
- Solvent free product.
- Multipurpose.

APPLICATION FIELDS

Product suitable as:

- vapor barrier over moist or ground screed;
- filler on tiled floors;
- waterproofing for swimming pools;
- vapor barrier with the application of *Decork* on floorings;
- vapor barrier over *Decorkrete* concrete micro-topping systems.

Once dry, *Vaposhield* can only be coated with epoxy or polyurethane coatings, *Decork* and *Decorkrete*.

Do not apply acrylic products over *Vaposhield*.

Suitable both inside and outside.

YIELD

1.4 kg/m² (44 ft²/gal U.S.) as vapor barrier with a moisture content of the support < 4%;

2.0 kg/m² (31 ft²/gal U.S.) as waterproofing and vapor barrier with moisture content of the support between 4% and 8%.

Moisture content of the support has to maintain under the value written above during product application and drying time.

COLOR

Sand grey.

PACKAGING

Each bucket contains the 3 components (A+B+C) already dosed, to be mixed.

10 kg (1.73 gal U.S.) plastic buckets.

Pallet: - n° 48 buckets, 10 kg each (tot 83.04 gal U.S.).

STORAGE

Store the product in its original containers tightly closed, in well aerated areas, away from sunlight, water, ice and kept at temperature between +5°C (+41°F) and +35°C (+95°F).

Storage time: 12 months.

PREPARATION OF SUPPORT

The support must be completely hardened and resistant. If not, restore the surface with cement mortar. The surface must be thoroughly clean, well consolidated, without debris or detaching parts and perfectly leveled.

Concrete

In case of new realized cement substrate, this must be sufficiently dry and cured.

Restore deep hollows and detaching parts with cement mortar.

Small cracks can be filled with *Vaposhield*.



For application video, product page, safety data sheet and other information.

Waterproofing - liquid

Whereas all indications and recommendations supplied herein are stated to the best of our experience and knowledge, they should be considered as indicative only and should be confirmed by exhaustive practical applications. *Diasen* doesn't know the peculiarity of the processing, or the characteristics of the support. Therefore the applicator should carry out preliminary tests, in order to verify the suitability to the foreseen application, and in any case he will take the responsibility of the intended use. In case of uncertainties or doubts, please contact the company's technical department, provided that this is only a simple assistance for the applicator: he should have the appropriate capabilities and experience in order to determine the more suitable solution. Always respect the latest update of the technical sheet available on www.diasen.com.

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Technical data

Features		Unit
Yield	1,4 kg/m ² (21.82 ft ² /gal) as vapor barrier with a moisture contents of the support < 4%; 2,0 kg/m ² (31.17 ft ² /gal) as waterproofing and vapor barrier with a moisture contents of the support between 4% and 8%.	kg/m ² (ft ² /gal)
Aspect	semi dense	-
Color	sand grey	-
Mixing water	maximum 5 % if applied by roll	%
Pot life at 23°C – 73.4°F, R.H. 50%	5	hours
Waiting time between 1 st and 2 nd coat (T=23°C / 73.4°F; R.H. 50%)	12	hours
Application temperature	+5 /+35	°C
	+41/+95	°F
Drying time (T = 23°C / 73.4°F; R.H. 50%)	24	hours
Storage	12	months
Packaging	10 kg (1.73 ft ² /gal) plastic bucket	kg - gal

Final performance		Units	Regulations	Results
Adhesion on concrete	1.75	N/mm ²	EN ISO 4624	good, break in the concrete
Adhesion test – pull off	253.81	lbf/in ²	-	
Adhesion of <i>Decork</i> on <i>Vaposhield</i>	1.50	N/mm ²	EN ISO 4624	good, break between <i>Vaposhield</i> and <i>Decork</i>
Adhesion test – pull off	217.55	lbf/in ²	-	
Adhesion of <i>Epokoat Swimming</i> on <i>Vaposhield</i>	1.50	N/mm ²	EN ISO 4624	good, break in the substrate
Adhesion test – pull off	290.07	lbf/in ²	-	
Salt resistance	-	-	-	good
Strong-bases resistance	-	-	-	good
Strong-acids resistance	-	-	-	slight softening of the product
Water absorption	9	%	-	-
Break elongation in 7 days	3.16 ± 1,53	%	EN ISO 527-1	-
Tensile strength	1.91 ± 0.11	N/mm ²	EN ISO 527-1	-
	277.01 ± 15.9	lbf/in ²	-	

* The above data even if carried out according to regulated test methods are indicative and may change varying the specific site conditions.

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Tiles

Old ceramic floorings must be attached to the substrate (if not, remove them and fill with cementitious mortar) and must not present any debris or detaching parts such as greases, waxes, oils, etc.

Joints can be filled with *Vaposhield*, applied by stainless steel trowel or rubber trowel.

According to the wide range of tiles that can be found on the market, it is recommended to perform a test to verify the perfect adhesion of the system.

Industrial flooring

In case of new realized cement substrate, this must be sufficiently dry and cured.

With big hollows, cracks or detachments restore the area with a specific cementitious mortar.

If necessary, on extremely smooth substrate, the preparation of the support must be performed through smoothing by single brush or machines provided with diamond tools. Then remove all the dust and/or wash with washer-drier machine.

Treatment of joints

Expansion, control or insulation joints can be treated before or after the application of the waterproofing.

Joints must be filled with the polyurethane sealant *Diaseal Strong* (see technical data sheet). When the sealant is dry, joints must be waterproofed with the fabric *Polites TNT* (see technical data sheet) cut in 10 – 15 cm wide strips, impregnated with *Vaposhield*, applied by brush.

In the corner wall- floor it will be created a cove base, with the product *Diaseal Strong*. When the sealant is dry, connection points must be waterproofed with the fabric *Polites TNT* (see technical data sheet) using the same method described for the joints, creating a tank effect.

Treat points in contact with doorsteps or with windows with the sealant *Diaseal Strong*.

MIXING

1. Open the epoxy mortar (part A) and pour it completely in the largest bucket.
2. Open the cement bag (part C), pour it slowly in the bucket and mix.
3. Open the catalyst (part B), pour it completely in the bucket and perfectly mix the 3 components (A+B+C), until obtaining a homogeneous mix. Use a professional mixer.
4. Do not dilute the product if applied by trowel. Add 5% of water if applied by roll.
5. Do not close the bucket when the mixing is done. *Vaposhield* creates an exothermal reaction.

Adding a higher percentage of water could compromise the effectiveness of the product.

Never add extraneous substances to the mix.

APPLICATION

1. Wait for the complete drying of the primer eventually used.
2. Apply *Vaposhield* in 2 or more coats by short-haired roll or steel trowel, taking care that the product penetrate well in the support and the surface is completely covered. In case of rain on not perfectly dry product, carefully verify the suitability of the next layer.
3. Once the first layer is dry, apply the second one, until reaching the expected yield. Cross the coats during application.
4. Possible next coatings (epoxy and polyurethane coatings, *Decork*, *Decorkrete*, etc.) must be applied within 48 hours.
5. Do not apply acrylic products on *Vaposhield*.

DRYING TIME

At 23°C (73.4°F) and 50% of relative humidity level, the product dries in 24 hours.

- Drying time is influenced by relative humidity level and by temperature and may change significantly.
- If applied in higher amount than the expected one, drying time can significantly increase.

Once dry *Vaposhield* can be coated with epoxy coating (*Epokoat range*), polyurethane coatings, *Decork* or *Decorkrete*.

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SUGGESTIONS

- Do not apply at temperatures lower than +5°C (+41°F) or higher than +35°C (+95°F).
- During summer season apply the product in the cooler hours of the day, away from sun.
- When used outside, do not apply with imminent threat of rainwater or ice, in case of strong fog or relative humidity level higher than 70%.
- Protect the product from pouring rain until the complete drying.
- It is very important to make, at regular intervals, appropriate expansion joints on the screed. The designer will consider the size and the ways of making the joints according to the conditions of the support.
- Before the product application, it is recommended to cover each element that will not be coated.

CLEANING

Wash tools with water before product hardens.

SAFETY

While handling, always use personal protective equipments and respect the instructions described in product safety data sheet.



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DIASEN Srl - Z.I. Berbentina, 5 - 60041 Sassoferrato (AN)
Tel. +39 0732 9718 - Fax +39 0732 971899
diasen@diasen.com - www.diasen.com