

WATERPROOFING - paste

AQUABIT

One component waterproofing paste for foundations, terraces and balconies

One component, water-based waterproofing mortar, developed to improve workability and covering features. The product is enriched with polystyrene microspheres that allow a thick application of the material up to 3 mm (0,12 in). In this way it is possible to fill and smooth the typical irregularities of concrete foundation walls. Excellent elasticity and crack bridging ability. Good resistance to salts. Applicable in just one coat, even on to irregular surfaces such as foundations, roofs, terraces, balconies and flower boxes.

BENEFITS

- Tiles can be glued directly over *Aquabit* using a good adhesive for outdoor
- Applicable in just one coat
- It doesn't need reinforcement mesh
- Good ability to fill and smooth irregulars and cracked support.
- Elasticity and durability
- Resistant up to 5 ATM (73,5 psi) in positive pressure
- Easy and quick application
- Seamless
- Totally cold application
- Application on cement without primer
- It can be applied over already paved surfaces in combination with *WATstop* (coverage 0,3 kg/m², see technical data sheet).
- LEED certificated product.

YIELD

2,00 l/m² for about 2,5 mm of thickness.

One gallon covers up to 20 sq ft. for about 0,09 in of thickness.

COLOUR

Black.

APPLICATION FIELDS

The product is suitable for the waterproofing of:

- terraces or balconies;
- flower boxes;
- foundations.

Thanks to its highly versatility and to thixotropy it is suitable for any area, horizontal or vertical, where waterproofing is more difficult.

It is suitable even to waterproof already paved surfaces in combination with *WATstop* (see technical data sheet).

The product can be applied both inside and outside.

PACKAGING

10 l (2,60 gal U.S.) or 25 l (6.60 gal U.S) plastic bucket.

Pallet:

- n° 60 plastic bucket, 10 l / 2,60 gal U.S. each (tot 600 l / 158,30 gal U.S.);
- n° 40 plastic bucket, 25 l / 6.6 gal U.S each (tot 1000 l / 263,80 gal U.S).

STORAGE

Store the product in well ventilated area, away from sunlight and ice, at temperatures between +5°C and +35°C (+41°F and +95°F).

Storage time: 12 months.



Diasen srl

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14

UNI EN 1504-2

Products and systems for the protection and restoration of concrete structures – Part 2 : Systems to protect concrete surfaces

Adhesion test – direct traction: 0,11 N/mm², break type B
Fire resistance: class D



For application video,
product page, safety data
sheet.

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Technical Data

Features		Unità di misura
Yield	2,00 l/m ² for about 2,5 mm of thickness One gallon covers up to 20 sq ft.	l/m ² 1 gal U.S. x ft ²
Aspect	semidense	-
Colour	black	-
Dilution	do not dilute	-
Mixture consistency	paste	-
Application temperature	+5 /+35 (+41/+95)	°C °F
Drying time (T=20°C (68 °F); R.H. 40%)	6	hours
Storage	12 months in original container and in dry places	months
Packaging	25 l (6.60 gal U.S.) or 10 l (2.60 gal U.S) plastic bucket	l gal U.S.

LEED® Credits

Standard GBC HOME

Thematic Area	Credit	Point
Materials & Resources	MRp2 - Construction Waste Management	compulsory
	MRc2- Construction Waste Management	from 1 to 2
	MRc3 - Low Emitting Materials	from 1 to 3
	MRc4 – Recycled content	from 1 to 2
	MRc5 – Materials extracted, processed and produced in short distance (regional materials)	from 1 to 2

Standard LEED for New Construction & Major Renovation, v. 2009

Thematic Area	Credit	Point
Materials & Resources	MRc2- Construction Waste Management	from 1 to 2
	MRc4 - Recycled Content	from 1 to 2
	MRc5 – Regional Materials	from 1 to 2
Indoor Environmental Quality	IEQc3.2 - Construction Indoor Air Quality Management Plan—Before Occupancy	1
	IEQc4.1 - Low Emitting Materials - Adhesives and Sealant	1

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Final performances		Units	Regulations	Results
Waterproofing capacity (positive counterthrust)	5,0	atm	UNI EN 12390-8	waterproof
	73.50	psi	-	-
Crack Bridging Ability	2,0	mm	ASTM C1305-00	resistant
	0.08	in		
Break elongation	207,92%	-	ISO 527-1 ASTM D638	elastic
Elongation after 5000 hours of artificial accelerated aging (Weathering Test)	56%	-	-	elastic
Weathering Test	1000 hours (> 5 years*)	hours	ASTM D4587	-
Resistance after 50 freeze-thaw cycles (-15°C/+15°C) (59°F/+59°F)	unchanged	-	UNI EN 202 ASTM C666	unchanged
Adhesion of glue for tile over <i>Aquabit</i> – Adhesion test – pull off	> 7	MPa	UNI EN ISO 4624	-
	> 1015.30	lbf/in ²	ASTM D4541	
Adhesion on concrete Adhesion test – pull off	1,0	MPa	UNI EN ISO 4624	good
Water absorption after 39 days of complete immersion	32,3	%	Internal method	-
Adhesion test – direct traction	0,11	N/mm ²	UNI EN 1542	break type B
	15.95	lbf/in ²		
Salts resistance (in water saturated NaCl for 80 days)	unchanged	-	-	Unchanged
Fire reaction	class D-s2, d0	-	UNI EN 13501-1	-

*1000 hours of weathering test are equal to about 5 years. This equivalence is merely indicative and it may change according to weather conditions where the product is used. The above data, even if carried out according to regulated tests are indicative and they may be change when specific site conditions vary.

PREPARATION OF SUPPORT

The support must be completely hardened, dry and resistant. Otherwise restore with suitable cement mortar. The surface must be thoroughly clean, well consolidated, dry and without debris or detaching parts.

Do not apply over very damaged surfaces.

Before the application of the product, it is recommended to protect every element that will not be covered.

If applied on terraces and balconies, the support must have the right slope for guarantee the rainwater drainage.

Concrete

Restore damaged and crumbly concrete with *Buildfix CLS* (see technical data sheet).

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Tiled surfaces

Existing flooring must be attached to the support (if not, remove them and fill with cement mortar) and must not present on the surface traces of separating substances such as fats, waxes, oils, chemicals, etc.

Over coatings with tiles it is necessary to treat the support with *Watstop* (see technical data sheet) before application of the waterproofing product *Aquabit*.

For supports not mentioned in technical data sheet, contact the DiaSen thecnical department.

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MIXING

Aquabit is a one-component product, ready to use. Mix before the application. Do not dilute and never add anything to the compound.

APPLICATION

Waterproofing of vertical surfaces

Apply one coat of *Aquabit* using an american spatula, realizing a minimum thickness of 2.5–3.00 mm (0.09–0.11 in). Immediately after the application, smooth *Aquabit* surface with an american spatula.

Apply with a constant thickness over the entire surface, to create a continuous layer. Do not interrupt the work over horizontal and vertical joints or on angles.

Waterproofing of balconies and terraces

1. Seal dilatation joints with *Diaseal Strong* (see technical data sheet).
2. Waterproof vertical joints and angles with *Safety Joint Top* (see technical data sheet).
3. Apply *Aquabit* in just one coat using an american trowel, realizing a minimum thickness of 2.5–3.00 mm (0.09–0.11 in).
4. Once the product is dry, apply tiles with a good adhesive for outdoor.

Waterproofing of already paved surfaces

1. Prepare the paved surface with *WATstop* (coverage 0,3 kg/m², see technical data sheet).
2. Once *WATstop* is completely dry, waterproof vertical joints with *Safety Joint Top* (see technical data sheet).
3. Apply *Aquabit* in just one coat using a trowel, realizing a minimum thickness of 2.5–3.00 mm (0.09–0.11 in).
4. Once the product is dry, apply tiles with a good adhesive for outdoor.

Aquabit can be applied by DS-1500 Texture Sprayer **peristaltic pump** (*Diasen* product). Nozzle diameter 6 mm (0.23 in), tube 7.5 m (24.6 ft) of length and 25 mm (0.98 in) of diameter.

DRYING TIME

At 20°C (68 °F) and with a relative humidity level of 40% the product dries in 6 hours.

- If applied with high thickness, it can get dry superficially but slower in deep.
- After application, protect the waterproofing layer until completely dry.
- Drying time is influenced by relative humidity level and by temperature and may change significantly.
- Once dry, *Aquabit* must be coated with tiles. If applied with an higher yield than the expected, the drying time could significantly increase.

SUGGESTIONS

- Do not apply at temperatures lower than +5°C (+41°F) or higher than +30°C (+86°F).
- During summer season apply the product during the cooler hours of the day, away from sun.
- Do not apply under imminent threat of rainwater, fog or relative humidity level higher than 70%.
- Apply the product only on completely dry surfaces.
- It is very important to made regular expansion joints on the screed to avoid cracks in the coating and thus possible water infiltration.

CLEANING

Wash tools with water before product hards.

SAFETY

While handling use protection equipment and see product safety data sheet.

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