

ULTRABIT

Waterproofing paste with high-speed drying and thick application

One component, bituminous paste water-based waterproofing, enriched with polystyrene microspheres to realise a thickness up to 3 mm (0.12in) in only one coat. Ultrabit can be applied at low temperature and in case of high environmental relative humidity to waterproof and to level irregular supports such as foundations, roofs, terraces, balconies and flower boxes.

BENEFITS

- Quick film formation after 30 minutes from the application.
- Cold application in one coat up to 3 mm (0.12 in).
- Excellent filling ability of cracks and irregularities of the support.
- Applicable at low temperatures and in case of high environmental relative humidity.
- It does not need reinforcement mesh and it realises a continuous layer without joints.
- It can be applied on tiled surfaces in combination with Grip Primer (see technical data sheet).
- Easy and quick application.
- LEED product.
- Product with CE certification (EN 1504-2).

YIELD

2.0 L/m² for about 2.5 mm of thickness.
20.37 ft²/gal for about 0.1 inch of thickness.

COLOUR

Black.

PACKAGING

20 L (5.28 gal) plastic bucket.
Pallet: n° 48 plastic buckets (960 L – 253.61 gal).

APPLICATION FIELDS

Ultrabit is created to waterproof irregular concrete supports such as terraces, balconies, foundations and flower boxes. Thanks to its high versatility and thixotropy, it is suitable for any area, horizontal or vertical, where the waterproofing is more difficult. *Ultrabit* can be applied on tiled surfaces in

combination with *Grip Primer* (see technical data sheet).

The product can be applied both indoor and outdoor.

STORAGE

Store the product in its original containers tightly closed, away from sun, water and frost, and kept at temperature higher between +5°C (+41°F) and +35°C (+95°F). Storage time: 12 months.

PREPARATION OF THE SUPPORT

The substrate must be completely hardened and resistant enough. The surface must be carefully clean, dry, well consolidated, without oils, greases, debris, detaching parts or any other material that might compromise the product adhesion. When the surface is friable, scarify totally until the obtainment a good support, correct lesions or deteriorated areas with proper mortar. The humidity on the support and the steam that creates the irradiation may compromise the adherence of the applied products. In case of water cleaning, wait that the support is completely dry.

Concrete

For new concrete floors, it must be sufficiently dry. In case of damaged or crumbly concrete, restore it with suitable cement mortar. For a better adhesion on smooth concrete, on not moist supports, it is possible to use *Grip Primer* (see technical data sheet). On moist supports, in order to prevent blistering or detaching phenomena, use *Vapostop* (see technical data sheet) as primer. If the support is subjected to rising damp, it is strictly necessary the use of *WATstop* (see technical data sheet).



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WATstop can also be used to fill small cracks. On raw concrete is recommended to use *Vapostop* (see technical data sheets) primer.

Smooth or tiled surfaces

Old floorings must be attached to the support (otherwise remove them and fill with concrete mortar) and do not present on the surface traces of detaching substances like greases, oils, chemical products etc. After carefully clean tiled surface, it must be treated with *Grip Primer* (see technical data sheet) before the application of *Ultrabit*. Use *WATstop* (see technical data sheet) for filling tile joints and create a perfect smoothed surface. *WATstop* must be used also in case of moisture of the support or rising damp. According to the wide range of tiles that can be found on the market, it is recommended to perform a test, in order to verify the correct product adhesion

Wood

Carefully clean the surface and eliminate all the dust, the friable parts as well as the detaching flakes. The wood must be completely dry and coherent. On non-treated wood supports, proceed with a direct application of the product. In every other case is recommended to execute a preliminary test to check the adhesion properties. For supports not mentioned in technical data sheet, please contact Diasen technical department.

Treatment of expansion joints

Before proceeding with the waterproofing intervention, it's necessary to predispose, at regular intervals, appropriate expansion joints. This type of joints divides the screed surface in smaller areas such that it allows the differential movements (generated by variation in the environmental conditions or concrete maturation phenomena) among these latter. Expansion joints must be done carefully in order to avoid water infiltrations. The designer must evaluate the size of the areas and its realization modality according to the substrate conditions. Joints must be filled with the polyurethane sealant *Diaseal Strong* (see technical

data sheet). Apply *Diaseal Strong* also in the contact points with doors and windows. The corners must be waterproofed with *Safety Joint Top* (see technical data sheet).

MIXING

Ultrabit is a one-component and ready to use product. Mix the product manually until obtaining a homogeneous mix. Do not dilute and do not add extraneous substances to the product.

Attention: do not mix *Ultrabit* with drill mixer.

APPLICATION

Waterproofing of vertical walls – Foundations

- Apply *Ultrabit* in one coat by trowel, creating a thickness of about 2.5 – 3.0 mm (0.10 - 0.12 in).
- Immediately after the application, smooth the surface of *Ultrabit* by trowel.
- Perform the application with a constant thickness over the entire surface, in order to create a continuous layer, well bonded to the support.
- Do not interrupt the work at connection points between vertical and horizontal surfaces or on angles.
- Once the product is dry, before putting the layer of embankment, protect the waterproofing realised with *Ultrabit* with protective membrane in PVC, to avoid damages caused by roots or stones.

Waterproofing of balconies or terraces – Under-tiles

- The expansion joints must be cleaned and filled with *Diaseal Strong* (see technical data sheet).
- Wait for the primer used to dry completely and waterproof vertical joints with *Safety Joint Top* (see technical data sheet).
- Apply *Ultrabit* in a single coat by trowel, creating a thickness of about 2.5 – 3.0 mm (0.10 - 0.12 in).

WATERPROOFING – paste

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, 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 to determine the more suitable solution. Always respect the latest update of the technical sheet available on www.diasen.com.

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- Once the product has dried out, cover it to protect the layer from being affected by external factors. Apply the tiles with a good amount of water-based glue for exteriors.

Waterproofing of surfaces already paved with existing tiles

- Firstly, prime the tiles with *Grip Primer* (see technical data sheet).
- Wait for the primer used to dry completely and waterproof vertical joints with *Safety Joint Top* (see technical data sheet).
- Apply *Ultrabit* in a single coat by trowel, creating a thickness of about 2.5 – 3.0 mm (0.10 - 0.12 in).
- Once the product has dried out, cover it to protect the layer from being affected by external factors. Apply the tiles with a good amount of water-based glue for exteriors.

Ultrabit can also be applied by DS-1500 **Texture Sprayer** peristaltic pump (*Diasen* product), with 6 mm nozzle diameter, 7.5 m pipe and 25 mm diameter.

DRYING TIME

At a temperature of 23 °C (+73.4 °F) and 50% relative humidity the product dries in 4 hours.

- Drying times are affected by relative humidity and temperature of the environment, and can also vary significantly.
- If *Ultrabit* is applied with high thicknesses, the drying time is considerably longer.
- Moreover, if the product is applied with greater thickness, it may dry in the surface but it will dry more slowly in the bottom.
- Drying time is influenced by environmental relative humidity and by temperature and it may significantly change.
- Protect the product from water contact until it is completely dry.
- Once dry, *Ultrabit* must always be coated with tiles. Apply tiles with a specific glue for outdoor.

SUGGESTIONS

- Do not apply at environmental temperature or at support temperature lower than +5°C (+ 41 °F) and higher than +35°C (95°F).
- During summer season, apply the product in the cooler hours of the day, away from sunlight.
- Do not apply with imminent threat of rain or frost, in conditions of strong fog or with relative humidity higher than 70%.
- Apply the product on completely dry surfaces.

CLEANING

The equipment used can be washed with water before hardening of the product.

SAFETY

While handling, always use personal protective equipment (PPE) and respect the instructions described in product safety data sheet.

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* These data, even if carried out according to regulated tests are indicative and they may change when specific site conditions vary.

Technical Data *		
Features		Unit
Yield	2.0 L/ m ² for 2.5 mm of thickness	L/ m ²
	20.37 ft ² /gal for 0.1 in of thickness	ft ² /gal
Aspect	pasta	-
Colour	black	-
Dilution	do not dilute	-
Application temperature	+5 / +35	°C
	+41 / +95	°F
Drying time (T= +23°C / +73.4°F; R.H. 50%)	4	hours
Storage	12	months
Packaging	20 L (5.28 gal) plastic bucket	L / gal

Final performances		Unit	Regulation	Results
Resistance to wash out (up to + 5 °C / + 41°F and 98% R.H.)	30	min	internal method	-
Break Elongation	91.40 ± 19.90	%	ISO 527-1	-
Tensile Strength	0.42 ± 0.08	MPa = N/mm ²	ISO 527-1 ISO 527-1	break type B
	60.92 ± 11.60	lbf/in ²		
Adhesion test – direct traction on concrete	0.11	MPa = N/mm ²	EN ISO 1542	
	15.95	lbf/in ²	ASTM D4541	

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** credits valid only for LEED standard for Schools, LEED for Core & Shell, v. 2009.

LEED® credits		
Standard LEED for New Construction & Major Renovation, LEED for Schools, LEED for Core & Shell, v. 2009		
Thematic area	Credit	Score
Energy & Atmosphere	EAp2 - Minimum energy performance	mandatory
	EAc1 – Optimize Energy Performance	from 1 to 19
Materials & Resources	MRc2- Construction Waste Management	from 1 to 2
	MRc4 – Recycled Content	from 1 to 2
	MRc5 – Regional Materials	from 1 to 2
	MRc6 - Rapidly Renewable Materials	1
Indoor Environmental Quality	IEQc3.2 - Construction Indoor Air Quality Management Plan—Before Occupancy	1
	IEQc4.2 - Low Emitting Materials - Paints and Coatings	1
	IEQc11 - Mould Prevention**	1



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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