REGULARIZATION

1348507

DIATHONITE REGULARIZATION

Dehumidifying regularization with anti salt barrier properties

Premixed mortar based on natural hydraulic lime and mineral additives selected with a suitable granulometry (diameter 0,5-1 mm). It is an excellent base for the preparation of the support over which the dehumidifying system will be applied. Its antisalt barrier function is perfect for the treatment of humidity problems, helping and enhancing the macroporous structure of the plaster, especially in those case where the risk of a masonry damage is medium/high. Its composition and its breathability features guarantee an excellent permeability to water steam thus allowing the correct breathability of the masonry and blocking the diffusion of crystal salts.

ADVANTAGES

- Highly breathable
- High workability
- High mechanical resistance
- It is an excellent antisalt barrier
- Suitable for historic refurbishment and green building
- It respects the thermal-hygrometric equilibrium of the support
- Perfect compatibility with mineral finishing (water or silicate based)
- Realized with natural hydraulic lime NHL5
- Ecofriendly

STORAGE

Stored the product in well ventilated areas, away from sunlight and ice, at temperatures between +5°C and +35°C. Storage time: 12 months.

YIELD

12 (±15%) kg/m^2 per cm of thickness.

COLOUR

White

APPLICATION FIELDS

The product is used as anti salt barrier in the treatment of humidity problems (rising damp, bad thermal insulation ...), helping and enhancing the properties of the dehumidifying plaster (*Diathonite Deumix*). *Diathonite Regularization* stops the flow of hydro soluble salts into the plaster. Moreover, its application is usefull to uniform the absorption of the existing substrate, to uniform the substrate and to make a better adhesion surface for the plaster.
Diathonite Regularization is suitable for bearing walls and plugging walls made of bricks, for blocks, tuff, stones and mixed structures before the application of the dehumidifying plaster.
The product is designed for green building works and refurbishment where it is necessary to guarantee the correct breathability of the wall and wherever ecofriendly materials are required.

PACKAGING

25 kg paper bags.
Pallet: n° 48 paper bags (1200 kg).

CE

Diasen srl
Zona Industriale Berbentina, 5 Sassoferrato ANCONA
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EN 998-1:2010
Specification for mortar for masonry - Part 1: Mortar for internal and external plaster

Thermal conductivity: NPD
Compression resistance: 4,30 N/mm^2 (category CS III)
Fire resistance: Euroclass A1
Vapour permeability value: μ< 8
Capillary water absorption: 0,35 kg/m^2 h^{0,5} (category W2)
Adhesion: 0,258 N/mm^2 – FP: C
Density: 1230±123 kg/m^3
Durability (freeze-thaw cycle): analysis based on current regulation of the place where the mortar is used.

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

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Technical Data

Features		Units
Yield	12 (± 15%) per cm of thickness	kg/m^2
Minimum thickness	0,5	cm
Aspect	powder	-
Colour	white	-
Granulometry	0,5 – 1,0	mm
Density	1230 (±10%)	kg/m^3
Water needed	4-5 l per bag of 25 kg	l/kg
Mixture consistency	sprayable	-
Application temperature	+5 /+35	°C
Drying time (T=20°C; R.H. 40%)	1	days
Storage	12 months in original containers and dry places	months
Packaging	paper bag 25 kg	kg

LEED® Credits

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

Thematic area	Credits	Point
Materials & Resources	MRc2- Construction Waste Management	da 1 a 2
	MRc4 – Recycled Content	da 1 a 2
	MRc5 – Regional Materials	da 1 a 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 - Mold Prevention*	1

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

Final performances		Units	Regulations	Results
Resistance to compression	4,30	N/mm²	UNI EN 1015	category CS III
Resistance to water steam diffusion (μ)	< 8,0	-	UNI EN ISO 12572	-
Water absorption by capillarity	0,35	kg/m^2 h^{0,5}	UNI EN 1015 - 18	category W2
Adhesion to support (brick)	0,258 – C type break	N/mm²	UNI EN 1015-12	-
Fire resistance (Euroclass)	A1	-	EN ISO 1716 EN 13823 EN 13501-1	-
Salt resistance	resistant	-	ASTM C 1012-95	excellent

Regularization

DIATHONITE REGULARIZATION

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Final performances		Units	Regulations	Results
Regularization consistency by hand	64,5	mm	EN 1015-3	-
Bulk density of wet mortar	1360	kg/m^3	EN 1015-6	-
Freeze-thaw resistance	resistant	-	EN 998-1	excellent

* 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

- Sub-strate temperature must be comprised between +5°C and +35°C.
- Sub-strate must be completely hardened, dry and resistant.
- The surface must be thouroughly clean, well consolidated, without debris or detaching parts. Eventually clean with sandblasting and successive pressure wash.
- Remove the wall until the brick or stone. Do not apply the product over old paintings or renders.
- Take off interstitial salt incrustation.
- It is recommended to protect frames and thresholds before apply the product.

MIXING

- Mix *Diathonite Regularization* with 15-20% of clean water, 4 – 5 Lt each bag. Gradually add the powder. The mixing can be done in a concrete mixer or in a bucket (by hand or with a drill mixer at low speed) until obtaining a homogeneous mixture without lumps.
- The amount of water indicated on the packaging is merely indicative. It is possible to obtain more or less fluid mixture depending on the application.
- Never add antifrost products, cement or aggregates.

APPLICATION

Application by hand

6. Before applying the first coat, wet the surface with low pressure water up to saturation, in order to not steal water from the mixture. A not completed saturation could compromise the adhesion of the regularization and create cracks. This operation is **fundamental** during summer time.
1. Apply a coat of 3÷5 mm of *Diathonite Regularization* by trowel to regularize the water absorption by the masonry and increase the bonding.
2. Apply the following coatings until reaching the requested thickness. Each coat must have a minimum thickness of 0,5 cm and a maximum one of 3,0 cm. For higher thicknesses apply the product in more than one coat. The following coating must be applied when the previous one is completely dry.
3. Once the application has finished, smooth the product in order to obtain a leveled surface.
4. Trowel *Diathonite Regularization* with a spnge trowel. We suggest to trowel the product if pushing your hand on top of it you leave just a slight fingerprint. A correct trowel allows to avoid cracks.
5. To improve the curing of the product, if possible, apply a polyethilene sheet for about one day after the application, to keep a high humidity or wet the product until it is completely dry.

Application by pump

Use plaster machine such as Pft G4 equipped with the following accessories: closed paddle mixer, stator/rotor D6, material hose 25x37 mm length ml. 10/20, spray lance.

1. Before applying the first coat, wet the surface with low pressure water up to saturation, in order to not steal water from the mixture. A not completed saturation could compromise the adhesion of the regularization and create cracks. This operation is **fundamental** during summer time.
2. Load the contents of the bags inside the hopper and adjust the flowmeter.

3. Apply a coat of *Diathonite Regularization* with a thickness comprised between 1,0 and 3,0 cm and let dry. For higher thicknesses apply the product in more than one coat. The following coating must be applied when the previous one is completely dry.
4. Once the application has finished, smooth the product in order to obtain a leveled surface.
5. Trowel *Diathonite Regularization* with a spnge trowel. We suggest to trowel the product if pushing your hand on top of it you leave just a slight fingerprint. A correct trowel allows to avoid cracks.
6. To improve the curing of the product, if possible, apply a polyethilene sheet for about one day after the application, to keep a high humidity or wet the product until it is completely dry.

DIASEN DEHUMIDIFYING SYSTEM

Deumidification from the inside of a semi-underground wall

1. Take off completely the damaged surface until brick or stone, starting from the flooring level, removing the baseboard.
2. If necessary, level the surface.
3. Apply *WATstop* (yield: 1,0 kg/sqm see technical data sheet) until the ground line to block humidity in counterthrust.
4. Before *WATstop* is completely dry (within 48 hours), apply *Diathonite Regularization* up to 50 cm over ground level by trowel or spray, with a minimum thickness of 1,0 cm to create an anti salt barrier. If the masonry is highly ruined, the regularization must be applied over the entire wall. In any case it is necessary to estimate the damages of the structure.
5. Wait until *Diathonite Regularization* is dry, wet it and apply *Diathonite Deumix* (see technical data sheet) by hand or pump with a minimum thickness of 2,0 cm.

Dehumidifcation from inside or outside in presence of salt efflorescences

1. Take off completely the damaged surface until brick or stone, starting from the flooring level, removing the baseboard.
2. Abundantely wet the substrate. This operation is fundamental during summer time, not requie during winter.
3. Apply *Diathonite Regularization* up to 50 cm over the surface with mould and efflorescences, by trowel or spray with a minimum thickness of 1,0 cm to create an anti salt barrier. If the masonry is highly ruined, the regularization must be applied over the entire wall.
4. In any case it is necessary to estimate the damages of the structure. Leave the surface rough to have a better adhesion of the plaster.
5. Wait until *Diathonite Regularization* is dry and apply *Diathonite Deumix* (see technical data sheet) dehumidifying plaster by hand or pump with a minimum thickness of 2,0 cm.

DRYING TIME

At 20°C and with relative humidity level of 40%, the product dries completely in 1 day.

- Drying time is influenced by humidity level and temperature and may significantly change.
- Protect *Diathonite Regularization* plaster from ice, direct sun light and wind while drying.
- Apply Diathonite Rinzaffo within 45 minutes from the mixture.
- With high temperature, direct sunlight or strong wind it is necessary to wet the plaster during the first 24 hours.
- Before proceeding with the plastering, verify the correct adhesion of the regularization.

SUGGESTIONS

- Do not apply at temperature lower than +5°C and higher than +35°C.
- If used externally, during summer season, apply the product during the cooler hours of the day, away from sun.
- Externally, do not apply with imminent threat of rainwater or ice, in condition of strong fog or with relative humidity level higher than 70%.

CLEANING

Wash tools with water before product hardening.

SAFETY

For the handling, see product safety data sheet. During application, always use personal protection tools.

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