

**CLIMATER**

Waterproof Lightweight Hygrothermal Screed



**DESCRIPTION**

CLIMATER is a floor-leveling waterproof hygrothermal screed. It is part the Bioclimatic Roof System (BRS) designed for areas exposed to weather such as roofs, open terraces, balconies, etc. It is also suitable for bathrooms, basements and other wet areas.



**ECOLOGICAL PRODUCT**

Manufactured from recycled glass, zero VOC, the disposal results in 100% non-toxic waste



**LIGHTWEIGHT**

4 times lighter than conventional building products



**FIRE RESISTANT**

Non-combustible



**SOUND ABSORBENT**

Space acoustics and noise protection



**BREATHABLE**

Hygro functionality allows a building to eliminate moisture from slabs



**WATERPROOF**

Continuous hydro protection and water repellency



**MAINTENANCE SAVING**

Prevention of mold and algae due to condensation



**ENERGY SAVING**

Continuous thermal protection in reducing of heat load in building, lowering the need in mechanical cooling

**TECHNICAL DATA**

Material composition : • 98% natural components • 20% recycled glass • Zero VOC • 100% recyclable non-toxic waste

Appearance & Consistency	: Dry light grey powder Designed as bonded screed	Water Vapour Diffusion	: $\mu = 0.9$ "highly breathable" (DIN EN 998-1)
Density Of Dry Cured Materials	: $544 \text{ kg/m}^3 \pm 10\%$	Water Absorption	: • 4% (ASTM C413: 2001) < 5% waterproof material (DIN EN 998-1)
Density Of Wet Bulk Material	: $750 \text{ kg/m}^3 \pm 10\%$ (BS EN 1015-6: 1999)	Water Capillarity Absorption	: • $0.1 \text{ kg/m}^2 \text{ min.}^{0.5}$ (BS EN 1015-18: 1999) Class W2 (DIN EN 998-1)
Thermal Conductivity	: • $0.09 \text{ W/m}^{\circ}\text{K}$ (ASTM C 518: 10) Class T1 (DIN EN 998-1)	Adhesive Strength to Concrete	: $0.38 \text{ N/mm}^2$ (39 tons/m <sup>2</sup> ) (BS EN 1015-12: 2000)
Fire Resistance	: Non-combustible Class A2 (DIN EN 998-1)	Sound Absorption	: Approx. 24dB at 40mm thick
Compressive Strength	: • $3.3 \text{ N/mm}^2$ (BS EN 1015-11: 1999) Class CS-II (DIN EN 998-1)	Sustainable	: inorganic - its properties don't decay in time
Bending Strength	: • $1.53 \text{ N/mm}^2$ (BS EN 1015-11: 1999) Class CS-II (DIN EN 998-1)		

**GENERAL INFORMATION**

Packaging	: CLIMATER is supplied in 11 kg bag	Pot Life	: Approx. 45 minutes
Water Ratio	: Approx. 7.0 litres of water per bag of CLIMATER, depending on the weather and the desired workability	Recommended thickness	: At minimum thickness of an approx. 30 mm with no limitation in total thickness
Duration of Mix	: At a minimum duration of 8 minutes per mix	Coverage	: Approx. $1 \text{ m}^2$ @ 20 mm thick per 11 kg bag of CLIMATER
Shelf Life	: Storage life of CLIMATER is at a maximum 12 months from the date of manufacture, storing in a dry conditioned environment with temperature between 5 ~ 30°C and with Relative Humidity (RH) that is less than 60%		

## SURFACE PREPARATION

CLIMATER must be applied directly on the bare slab. Prior to application the surface of the slab shall be free of grease, oil, loose materials, etc., it shall be cleaned, dampened and it must be kept below 30°C with protective covering (see APPLICATION WARNING)

### Note:

- If necessary, the surface of the bare slab should be prepared by ball blasting, milling or diamond grinding to ensure a better bonding between CLIMATER and the surface.

## PREPARATION FOR APPLICATION

It is essential to use our clip system with PVC depth and / or corner profiles to prevent material movement due to the lightweight and sticky nature of CLIMATER, and to ensure that the required thickness of application is obtained, as well as to achieve a flat levelled finishes.

1. Setting up by marking on the substrate of the designated locations of clip system and depth profiles.
2. Installation of plug on slab by drilling and complete with inserting of screw for clip system.
3. Adjust and align all of the inserted screws according to the desire thickness of application, and install the clip system complete with depth profiles.

### Note:

- For slab with construction / movement joints, sealing tape complete with compound shall be applied to these joints prior to application of CLIMATER.

### Recommendation:

- The distance between each and every profiles shall not be more than the length of the ruler/leveller.
- The first / last profile at the edges shall be installed at a distance of not more than 100 mm away from the edges.
- The clip system shall be installed at an interval of not more than 500 mm.

## PRODUCT PREPARATION

1. Pour half amount of required water into mixing bucket.
2. Empty the bag of CLIMATER in a slow and steady manner into the bottom of the mixing bucket, to prevent the flying of powder due to pouring from height.
3. Empty the balance amount of water into the mixing bucket.
4. Begin mixing with the designated hand stirrer at a slow speed toward the bottom of the bucket to allow for the base material to absorb the water.
5. Speed up the mixing thereafter material have been fully absorbed in water without visible dry material, and complete the mix thereafter the required duration and the desired consistency is achieved.
6. Total mixing time required is 8 to 10 minutes.

### Note:

- To prevent separation of ingredients, only mix with full bag where no part mix shall be carried out.
- Only designated mixing equipment is allowed in the mixing procedure to allow for ultimate performance of CLIMATER. These designated equipment are:
  - i. Heavy-duty Hand Stirrer from EIBENSTOCK with paddle @ dia. 160 / 180 mm
  - ii. Automatic Mixer with 3 arm and turbo technique mixing

## APPLICATION

1. Apply with slight pressure of CLIMATER onto the substrate using trowel.
2. Fill the area of application till reaching the installed depth profiles.
3. Ruler / leveller shall be used to flatten the surface and remove excess materials according to the desired depth, with the ruler / leveller moving along the installed depth profiles (as a rail) from one direction to the end.

## WARNING

For placement under direct sunlight or temp. > 30°C, adequate protection such as application of curing compound and covering with thermal sheet or wet jute bags shall be placed, especially during the process of curing, in order to prevent rapid dehydration or desiccation (excessive moisture loss).

### Recommendation:

- In consideration of the accessibility to the applied CLIMATER for finishes touch-up, It should be applied in rows/columns alternately with the period of application carrying out at a minimum of 2 days to complete.

## FINISHES

Applied CLIMATER will be set thereafter 48 hours in a normal dry condition (temp. > 30°C). Minimum troweling is needed for a smooth finishes which finishes should be carried out while in the process of levelling.

### Note:

- There should not be any traffics onto the applied CLIMATER whilst in the process of curing to avoid possible damages to the finishes.
- Any other coatings or solid material such as tile or stone can be applied onto CLIMATER thereafter. However, these coating products shall be accordance to their requirement in the application procedure, and that the application of solid materials can only be carried out after the applied CLIMATER has fully cured.

## HEALTH AND SAFETY

Use of Personal Protective Equipment such as goggle and facemask is recommended no doubt CLIMATER is non-hazardous. Do not inhale the powder while in the process of mixture and in the event of eye contact, rinse eyes immediately with clean water and seek medication consultation if irritation persists. Skin contact shall be wash with soap complete with clean water.

## TECHNICAL SUPPORT

Please consult our technical service for further information and any site assistance required (especially prior to the 1<sup>st</sup> time application)

## DISCLAIMER

The use of this product is beyond the manufacturer's control and liability is restricted to the replacement of material proven faulty. The manufacturer is not responsible for any loss or damage arising from incorrect usage. Specifications are subjected to changes without prior notice. Buyers shall be solely responsible for determining the suitability of products for their intended use. Before application, customers and users shall check to ensure that they have the latest version of Technical Data Sheets from [www.bioclimaticssolutions.com](http://www.bioclimaticssolutions.com)

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