

## Chelfix Thermo Fix 100

Cement based, thermal insulation board adhesive



**Product Description** Polymer modified, cement based and ready to use mortar which is used for bonding boards (EPS, Mineral Wool, XPS and etc) to surfaces such as concrete, brick and aerated concrete.

**Areas of Application** It is used as an adhesive for Extruded Polystyrene (XPS), or Expanded Polystyrene (EPS) boards, and stone wall thermal insulation boards on horizontal and vertical surfaces and on interior and exterior of building facades.

**Advantages**

- It isn't affected by water.
- Ensures a very good bonding on concrete, brick, gas concrete, plaster, prefabricate panel etc. surfaces.
- Non sag.
- It is suitable for vertical, horizontal and ceiling applications.
- Very good compressive and bond strength.
- Suitable for internal and external applications.
- Cost effective (economical), hand applied no formwork is required.
- Requires no primer.
- Resistant against external impacts and frost.

**Application Instructions**

**Surface Quality:** The surfaces must be clean, smooth, solid and free of substances and residuals preventing adhesion such as all kinds of dust, grease, rust, molding oil, and detergents, etc. The surfaces must be smooth, the weak parts must be removed. If there are cracks, pits on the surfaces or walls which the applications shall be made, they must be repaired with appropriate CHELFIX repairing mortars. **Surface Preparation:** The surface which it shall be applied on must be humidified slightly. There must not be wetness and splash. In addition, if the defects are excessive, finishing or rough coat must be made in advance.

**Application Method**

**Frame Method:** CHELFIX THERMO FIX 100 is applied on all edges of the heat insulation board with the aid of trowel in the form of frame. Additionally, two piles of CHELFIX THERMO FIX 100 adhesive mortar is placed on the 10 cm. right and 10 cm left sides from the center of the board as the trowel to be a pile. This method is generally used on unlevelled or old building walls. In case the surface is defective excessively, heat insulation board should not be forced to be pasted in a malformation manner. In this case, when setting the CHELFIX THERMO FIX 100, if the heat insulation board tries to reconstitute, unidirectional adhesion weaknesses may be seen.

**Chiseling Method:** The heat insulation board is applied on the surface of the building with the aid of toothed trowel. This method is generally used on very smooth surfaces. When applied on defective surfaces, adhesion weaknesses may be seen. IZODER also recommends only these two methods. Only making lumps without framing is not a correct application method.

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## Application Notes / Restrictions

- Special precautions should be taken for applications to be performed on glass mosaic, ceramic, painted, old and dusty surfaces; - Glossy surfaces such as glass mosaic and ceramic should be primed with CHELFIX LATEX 300.
- Painted old surfaces should be notched or primed.
- Washing with water jet or priming should be performed on weak surfaces with excessive dust emission.
- For Mineral wool applications CHELFIX THERMO FIX100 Thermal Insulation Board Adhesive firstly should be applied as primer to the mineral wool parts to be treated.
- CHELFIX THERMO FIX100 application should not be made before rough coat on the briquette or aerated concrete surfaces.
- Product may irritate the skin in case of contact. Work clothes, protective gloves, mask and goggles should be used. Before starting to work, protective cream may be put on hands. in case the mortar contacts with eyes, eyes should be washed immediately with warm water, and medical advice should be get.
- It should be protected, covered with nylon or exposure of the product to frost should be prevented by applying insulating board plates under environment conditions to be below +50°C.
- It should be protected, covered with nylon or exposure of the product to dehydration should be prevented by applying heat insulation board plates under temperatures above +35°C.
- Do not add foreign substances.
- 6.5-7.0 liters of clean and clear water at normal ambient temperature is added into a clean pot purged from all materials that could prevent adhesion. CHELFIX THERMO FIX 100 in the 25 kg bag in powder form, is emptied in the pot filled with water. it is stirred with a low-speed mixer until a smooth and homogeneous appearance is obtained. Mixture period must be minimum 5 min. The mortar obtained at the end of the process should be rested for 3 min., and stirred again for 2 min. until it becomes homogenous.
- There are two different types of adhesion method depending on the workmanship, evenness of the surface and heat insulation board type to be used.
- After the board is adhered to the surface, in 24 - 48 hours plugging can be started depending on the air temperature.
- It must be protected against bad weather conditions such as direct sunlight, strong wind, high air temperature (above +35°C), rain and frost after the application. The hands should be washed with water and detergent before the product is cured and hardened.
- The equipment should be cleaned immediately after the application before it is hardened yet. They should be cleaned by mechanical methods after it is hardened.

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## Packing

CHELFIX THERMO FIX 100 is available in 25kg bags.

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## Fire

CHELFIX THERMO FIX 100 is nonflammable.

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## Technical Data

| General Information                         |  |
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| Color                                       | Grey powder  |
| Shelf Life                                  | 12 months in dry environment in unopened packaging |
| Package                                     | 25kg kraft bag                                     |
| Application Information                     |  |
| Mixing Ratio                                | 6.5-7.0 lit water / 25kg powder                    |
| Application Temperature                     | (+5 °C) - (+40°C)                                  |
| Pot Life                                    | 2 hours  |
| Period of Getting into Use                  | 2-3 days   |
| Application Thickness                       | Max. 8 mm  |
| Plugging Period                             | After minimum 24 hours                             |
| Performance Information                     |  |
| Adhesion Strength to Substrate (EN 1015-12) | ≥ 0.5 N/mm <sup>2</sup>                            |
| Adhesion Strength to EPS (EN 13494)         | ≥ 0.08 N/mm <sup>2</sup>                           |
| Bending Strength (TS EN 1015-11)            | ≥ 2 N/mm <sup>2</sup>                              |
| Compressive Strength (EN 1015-11)           | ≥ 6 N/mm <sup>2</sup>                              |
| Reaction to Fire (TS EN 13501-1)            | A1   |

## Consumption Table

| CHELFIX         | Mixture Density (kg/lit) | 1mm / 1m <sup>2</sup> Powder Consumption (kg) | Mixture Water Amount (lit) |
|-----------------|--------------------------|---|----------------------------|
| 25 kg kraft bag | 4 - 4.5 kg               | 5.5 - 6.5 kg                                  | 6.5 - 7.0                  |