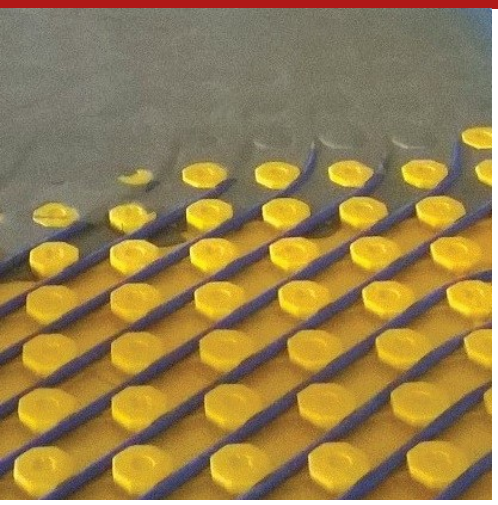
Floor Level HP Therm

Self-levelling mortar specific for coil heating systems



Floor Level HP Therm is a self-levelling modified-polymer cement mortar having fibre-reinforcement, with high thermal conductivity, fast-acting hold and rapid hardening. Applied prior to laying the flooring, it is perfect for levelling at thicknesses ranging from 3 mm to 15 mm so as to adapt to any type of covering. Particularly suitable for radiant flooring.

CUSTOMS CODE: 3824 5090
COMPONENTS: Single-component
APPEARANCE: Powder
AVAILABLE COLORS: Gray
PACKAGING AND DIMENSIONS: Bag 25 kg

OBTAINED CERTIFICATIONS AND REGULATIONS

CE EN 13813

C30 F7 EN 13813

FEATURES AND BENEFITS

The perfect pourability, fluidity and self-levelling properties of the mortar facilitate the coating operations, to quickly attain perfect planarity. By casting the product on the substrate and helping to spread the self-levelling product with a putty knife, the resulting surface is perfectly smooth thanks to the fine granulometry of the silica aggregate (with a maximum size of 0.5 mm). Floor Level HP Therm is additivated with shrinkage reducers and fibre-reinforced with special anti-cracking glass microfilaments, being alkali resistant and with a high content of zirconium (READYMESH technology), metal microfibres 6 millimetres in length, and iron-silicate microaggregates with high volumic mass, all to confer exceptional dimensional stability to the product. As an additive, Floor Level HP Therm has a special high-flexibility powder adhesive that ensures the product bonds to various media without affecting the self-levelling characteristics and breathability to water vapour. The swift development of mechanical resistors ensures the immediate progression of construction operations and walkability just a few hours after application (approximately 4-5 hours at 20° C). Fast drying means the floor coverings and finishing operations can be applied sooner – always checking the moisture content of the hardened mortar with a calcium carbide hygrometer or electrical hygrometer and bearing in mind that the latter provides merely indicative values that should be calibrated on the product in advance.

FIELDS OF APPLICATION

Floor Level HP Therm can be used to shave uneven substrates to be levelled then subsequently covered with various types of flooring (ceramic tiles, marble, wood, plastic material, and so on), especially in cases where speed of execution is required and the finished flooring needs high resistance to loads and heavy traffic, along with high thermal conductivity and extensive levelling density. Some substrate examples include: • concrete slabs and cement screeds; • anhydrite substrates; • heated floors; • existing concrete flooring, terrazzo tiles, natural stones, magnesite. • existing ceramic flooring with the substrates subject to priming with two-component Syntech RGS resin (consumption approximately 1.2 kilograms/m2) and casting of Floor Level HP Therm on wet resin. Also suitable for particularly stressed areas of application, such as foundations subjected to intense dynamic-vibrational stress.

ALLOWED SUPPORTS

Concrete - Tiles - Floor screed - Bricks - Natural stones

PREPARATION OF SUPPORTS

The surfaces on which the product is to be applied must be cleaned of dust, free from contamination, paints, loose and crumbly parts, and so on. Adopt effective mechanical measures to remove residues that could impact upon product adhesion. On media with standard absorption, slightly wet the substrate with water to clean the surface and favour the bonding of Floor Level HP Therm. If the substrate is particularly absorbent, weak and crumbly or whereby it is not possible to slightly wet, prime the surfaces with the special aqueous resin dispersion Bond Plus, preferably spreading the product with a rigid-bristle brush to promote penetration into the base. In all cases where surfaces are primed with Bond Plus, the application of Floor Level HP Therm must take place “wet-on-wet” immediately after the first priming — with a consumption of Bond Plus at about 200 grams/square metres. On non-absorbent, vitrified, ceramised bases – such as ceramic or klinker tiles – prime surfaces with the bicomponent Syntech RGS resin (with a consumption of 1.2 kilograms/m2) and apply Floor Level HP Therm onto the resin whilst still fresh. Floor Level HP Therm is pumpable but, since the product has accelerated grip, the casting must be continuous and without interruption (with the pump to be entirely emptied before any stoppage to the pumping lasting more than 10 minutes).

MODE OF USE

Mix with a triple-helix paddle with a high rotational count or with a vertical axis mixer. Put 2/3 of the total water for the mixture into the mixer, gradually adding the product and the remaining water, stirring for about 2–3 minutes until obtaining a homogeneous mixture with castable consistency. The mixture must contain from 18% to 20% water by weight (from 4.5 litres to 5.0 litres per 25-kilogram bag). Strain the mixture thus obtained onto the substrate and spread with a rubber blade, standard metal putty knife or toothed trowel (angled to obtain the desired thickness). Thanks to its perfect self-levelling characteristics, Floor Level HP Therm immediately fills the grooves left by the toothed trowel and eliminates small imperfections caused by its passage (trowel markings). Finish the adjustment and smoothing operations within 20 minutes. The product has accelerated grip and hardening, meaning there should be no pause between mixing and application. The product cures in around 45 minutes and is walkable after a few hours.

APPLICATION METHODS

Spatula - Notched finishing trowel - Straight edge

TOOL CLEANING

Water

KEY FEATURES

- Max. recommended thickness: 30 mm
- Min. recommended thickness: 3 mm
- Pot-life: 20 min
- Temperature of use: +5/+35 °C
- Maximum diameter of aggregate: 0.5 mm
- Mix with water: 20 %
- Shelf-life: 12 months
- UV-resistant

TECHNICAL SPECIFICATIONS

EN 12190
Compressive strength after 1 day **> 4 MPa**

EN 196
Flexural strength at 1 day **> 3 MPa**

UNI EN 1015-6
Density **2150 MPa**

EN ISO 10456
Thermal conductivity **1.60 W/mK**

Setting time **40-60 min**

EN 13142
Static elastic modulus **22000 MPa**

UNI EN 13057
Capillary absorption **0.35**

EN 12190
Compressive strength after 28 days **> 38 MPa**

EN 196
Flexural strength after 28 days **> 9 MPa**

pH **> 12**

UNI EN 1015-17
Chloride content **< 0.01 %**

EN 1015-12
Bonding force **> 2 MPa**

Permeability to water vapor **40**

CONSUMPTION

Approximately 1.8 kilograms/square metre of Floor Level HP Therm is needed for every millimetre of thickness to be achieved.

STORAGE AND CONSERVATION

Store the product in its original packing, in a fresh and dry environment, avoiding frost and direct sunlight. Inadequate storage of the product may result in a loss of rheological performance. Protect from humidity.

PHOTO GALLERY



ADDITIONAL CONTENT

WARNINGS AND PRECAUTIONS

The general information, along with any instructions and recommendations for use of this product, including in this data sheet and eventually provided verbally or in writing, correspond to the present state of our scientific and practical knowledge.
Any technical and performance data reported is the result of laboratory tests conducted in a controlled environment and thus may be subject to modification in relation to the actual conditions of implementation.

Azichem Srl does not assume any liability arising from inadequate characteristics related to improper use of the product or connected to defects arising from factors or elements unrelated to the quality of the product, including improper storage.
Those wishing to utilise the product are required to determine prior to use whether or not the same is suitable for the intended use, assuming all consequent responsibility.

The technical and characteristic details contained in this data sheet shall be updated periodically. For consultation in real time, please visit the website: www.azichem.com. The date of revision is indicated in the space to the side. The current edition cancels out and replaces any previous version.

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