

It's that Easy.

Watch the processing video of Thermozell



eco speed

Thermozell



Frequently Asked Questions

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Product Types

Thermozell levelling compound

Used to compensate for height tolerances, as well as covers the installation and drainage pipes, which are usually laid directly on the raw ceiling.

Thermozell thermal insulation lightweight concrete enables screed and tile layers to produce a floor structure quickly, economically and in compliance with norms.

In case of dismantling, coherent parts can be taken out and crumbled back into grains due to the material's property.

The material is not self-leveling and is pumpable max. 60-80 m (depending on the machine technology).

Depending on the applications, you can choose from the following types:

Thermozell 160

For applications where good thermal insulation is required, such as attic insulation, sloped concrete, basement insulation or as insulation for walls in contact with the soil.

Thermozell 250

For applications where good thermal insulation is required, such as attic insulation, sloped concrete, basement insulation or as insulation for walls in contact with the soil.

Thermozell 400

For applications with higher pressure loads, such as subfloors for industrial halls and frost cases (from 20 cm) for roads and parking lots. Thermozell 400 is non-combustible and complies with fire class A2 according to DIN EN 13501-1.

Thermozell 600

For applications with high pressure loads, such as road construction and industrial halls. Thermozell 600 is non-combustible and complies with fire class A2 according to DIN EN 13501-1.

What is Thermozell eco?

Thermozell eco is a factory-premixed, cementitious levelling compound with the addition of refined EPS granulate in an 80 liter bag. Only the addition of water creates a load-bearing levelling compound with excellent insulating properties.

What is Thermozell pro?

Thermozell pro enables fast, standard-compliant and economical production of a floor structure and consists of refined EPS granulate in 200 liter bags. Mixing with the addition of cement and water takes place directly at the construction site.

What is the difference to speed products?

The difference lies in our various additives. In the case of eco/pro, these lead to readiness for covering after approx. 10 days.

With eco speed/pro speed, this occurs within approx. 24 hours (depending on installation thickness, ventilation and ambient temperatures).

Processing and Application

Which cement can be used for the Thermozell pro/pro speed?

By adding different amounts of cement, the product types Thermozell pro speed and pro 600/400/250/160 with their respective properties and application possibilities arise. Commercially available cement (e.g. CEM 42.5 N/R, CEM 32.5 N/R) or special cement or binders for the production of bonded levelling compounds can be used for mixing.

Does Thermozell have to be compacted?

Thermozell does not have to be compacted. The mix only needs to be levelled with a levelling rod. 1m³ of Thermozell results in 1m³ of finished levelling compound. When properly installed, there is no post-compaction or settlement.

What is the minimum fill height required?

The nominal thickness (planning thickness) of 30 mm must be arranged at every point according to approval: Z-23.11.266 so that it is not fallen short of at any point.

When is Thermozell ready for covering?

Before installing the rest of the floor structure, the levelling layer must be sufficiently dry. To determine the residual moisture, the CM measurement has proven itself.

The residual moisture should not exceed 12 %.

Ready for covering is achieved with:

- eco speed or pro speed after 1-2 days
- eco or pro after 10 days

How can the residual moisture be determined?

In practice, the CM method has proven itself: The initial weight is 10 g from the entire cross-section. At a pressure indication of max. 1.2 bar, readiness for covering is given.

This means a residual moisture of 12 %. On our product pages of the eco-series and pro-series you will find detailed instructions on how to do the CM measurement:

<https://thermozell.hirsch-gruppe.com/eco/>

<https://thermozell.hirsch-gruppe.com/pro/>

Are pipes, routes and ducts in the installation level permitted to be filled with Thermozell in accordance to DIN 18560-2?

Thermozell eco speed / eco 250 and pro speed 250 types reliably meet the minimum compressive strength of 100 kPa at 10 % compression in accordance with DIN EN 826 and can be combined with other leveling layers. If several leveling layers are used next to each other, ensure that they have the same stiffness.

In addition, care must be taken during installation to ensure that the insulation board layer is not undermined and the height of the layer must be flush with the respective insulation board layer.

Can Thermozell be used in conjunction with metal pipes?

Aluminum-laminated pipe insulation is not suitable for use in cement-bound fills. The valid DIN 4140 (corrosion protection) must be applied and observed accordingly.

... and with plastic pipes?

We are not aware of any adverse effects with plastic pipes.

What is the processing time?

- eco speed/pro speed can be processed for at least 15 min (at 20°C)
- eco/pro can be processed for at least 30 min (at 20°C)

What processing temperature is required?

The processing temperature (based on air and object temperature) must be at least 5 °C (and maximum 30 °C).

Can Thermozeil remain in the component after a water damage?

After water damage with fresh water, the Thermozeil levelling compound can be dried with ventilation dryers. However, if wastewater should have entered the levelling layer, you are faced with contamination and for hygienic and health reasons the levelling layer would have to be built back in a generous radius, in the affected area.

Which mixing devices are suitable?

Screed pump, truck mixer, compulsory mixer, drum mixer, free-fall mixer, mechanical mixer, mixing truck.

Is Thermozeil suitable as impact sound insulation?

Thermozeil lightweight concrete has compressive strength properties and therefore does not have properties that affect impact sound. In case of appropriate requirements, an impact sound insulation board can be installed on Thermozeil in the further construction.

How to lay tiles/flooring on Thermozeil?

If tiles/floor coverings are to be laid on Thermozeil Type 400 must be used as a minimum requirement.

To lay tiles/floor coverings, the Thermozeil layer must be prepared as a level surface using a commercially available leveling/troweling compound. (The manufacturer's instructions must be considered.)

Floor structure recommendation available on request.

Sustainability

Is Thermozell free from...?

Thermozell is free from HBCD (hexabromocyclododecane).
Thermozell is free from CFCs, HCFCs and HFCs.

Is Thermozell QNG ready?

The “Quality Seal for Sustainable Buildings” (QNG) is a governmental seal of the German Federal Ministry of Housing, Urban Development and Construction for buildings. The catalog of requirements for the avoidance of harmful substances (313) in building materials for insulation materials stipulates freedom from HBCD and freedom from halogenated blowing agents. The QNG seal is a prerequisite for KfW funding in new construction to achieve the sustainability class (NH). Thermozell pro speed is free of HBCD and halogenated blowing agents and is therefore QNG ready.

Is Thermozell DGNB certified?

The DGNB (German Sustainable Building Council) does not certify individual products. The building or residential area is always certified as a whole. Thermozell is DGNB-compliant and is listed in the DGNB Navigator. Thermozell pro speed can therefore be used for certification according to DGNB.

Storage and Disposal

How should I store Thermozell?

The bags must be stored in a dry place and protected from sun and heat. The maximum storage time for Thermozell eco speed/eco (ready-mix) is 6 months. Thermozell pro speed/pro can be stored for up to 1 year.

Where can I dispose of Thermozell?

For the disposal of Thermozell lightweight concrete, please contact a recycling center/a waste collection point in your area.

If you have any questions not found,
please contact our application
engineering department

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