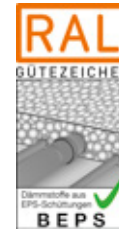


## PRODUCT DESCRIPTION

- thermotec® BEPS-WD 90N is a pumpable thermal insulation material with impact sound insulation properties
- Made from new EPS beads and a purely mineral binder
- The product is mixed with water on site and must be processed within 30 minutes

## APPLICATION

- Floor insulation under screed (suitable for underfloor heating)
- Insulation of the top floor ceiling
- Flat roof insulation (gradient design possible on site)
- Special applications on request



**EN 16025-1** ✓  
THERMAL INSULATION MATERIALS FOR HEAT AND/OR SOUND PROTECTION IN BUILDING CONSTRUCTION.

**BEB-HINWEISE** ✓  
FEDERAL ASSOCIATION FOR SCREED AND COVERINGS.



## TECHNICAL DATA

	BEPS-WD 90N
Reaction to Fire classification according EUROCLASS	E
Nominal value of thermal conductivity $\lambda_{D(23/50)}$	0,0495 W/(mK)
Min. installation thickness	From 40 mm
Max. installation thickness (thicknesses over 500 mm must be installed in multiple layers. Application on request.)	2000 mm****
Water addition per m <sup>3</sup>	30 Liter
EPS Type / max. particle size / dust particles [PS]	N/PS5/D0
Bulk density of the dry mixture [LD]	90 kg/m <sup>3</sup>
Density of the fresh mortar [FMD]	135 kg/m <sup>3</sup>
Bound EPS Density [DMD]	115 kg/m <sup>3</sup>
Water vapour permeability $\mu$ [MU]	3
Compressive stress at 10 % strain [CS]	≥ 100 kPa
Compressive stress at 2 % strain [CS (2)]	≥ 50 kPa
Dimensional stability under specified temperature and humidity	Max. 3 %
Compressive creep 10 years at 20 kPa	CC(1,7/1,2/10)20
Dynamic stiffness [SD]	–
Water absorption during short-term, partial immersion	≤ 2,0 kg/m <sup>2</sup>
Content, emission and/or release of dangerous substances	AgBB approved
Chromium VI content   HBCDD content	≤ 2 mg/kg   < 0,01 %
Application time (open time, 20 °C/60 % rH)	Mind. 30 Min.
Application temperature min./max.	+5 °/+30 °C
Accessible after	Approx. 24 hours**
Ready for covering (CM measurement) for installation thickness up to 250 mm (23 °C /50 % rH) for installation thickness over 250 mm (23 °C/50 % rH)	≤ 12 M-% Approx. 36 hours*** Approx. 36 hours***
Delivery forms	Mixmobil, thermotec® continuous mixer, 100 liter pre-mixed material
Certifications, licences and laboratory tests	EN 16025-1 approved, free of HBCD, BEB-information sheet*, AgBB approved, ETA-19/0289

\* Notes on the planning and execution of floor constructions for pipes, cables and built-in components on bare ceilings. \*\* Depending on temperature, humidity and installation thickness. \*\*\* The specifications are to be understood as guidelines. A CM measurement is required. \*\*\*\* Depending on live load and load-bearing capacity of the load distribution plate.

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## PREPARATION

- The surface must be dry, clean (swept clean) and free of loose parts; openings must be professionally sealed
- If necessary, install a vapor barrier or damp-proofing (as determined by the planner or building physicist)
- thermotec® must not be installed at temperatures below +5 °C and above +30 °C at the installation site

## LAYING

- Ensure that the insulation material is compacted without voids before leveling (e.g. with a large aluminum shovel or a large screed board)

## AFTER APPLICATION

- Ensure a minimum temperature (+5 °C) until the floor can be walked on
- Avoid draughts in the first 24 hours
- Check accessible for foot traffic (before walking on for the first time)
- Verify accessible for covering (dryness of the insulation layer)
- Rub the surface of the thermotec® insulation with a batten to remove loose and protruding polystyrene beads
- Check the flatness using a lath, laser ...
- Compensate for unevenness/depressions with suitable dry filling and shave/sand down any high spots
- Plan for separating layers, films, and impact sound insulation according to building physics requirements

## SPECIAL CONDITIONS

- The installed areas may only be walked on for the installation of underfloor heating and for the construction of the subsequent floor structure
- Before laying the mastic asphalt screed, place the melt protection boards (Fresco from 15 mm)

## ATTENTION

- Never install more than ONE suitable insulation layer on thermotec® floor insulation!
- The rules of building physics must always be followed during planning and installation!
- If necessary, establish test areas!
- **Refer to the safety data sheet!**

## APPLICATION PRE-MIXED/BAGGED MATERIALS

### STORAGE CONDITIONS

- See label

### PROCESSING

- thermotec® 100 l bags (approx. 8 - 10 kg), factory pre-mixed EPS dry mortar
- Do not add any additional binders or additives!
- Do not divide the bags! 1 bag = 1 mixture
- Mixing time at least 2 minutes

### MIXING EQUIPMENT

- Screed pump (can deliver up to 150 m)
- thermotec® continuous mixer
- Whisk

### WATER ADDITION

- 3 liters per bag
- For installation thicknesses under 7 cm, dusty substrates and temperatures above +25 °C, use 0.5 liters more mixing water per 100-liter bags

## APPLICATION ON UNFINISHED CEILING

### STORAGE CONDITIONS

- Process immediately after mixing; cannot be stored!

### PROCESSING

- Processing and application on unfinished ceilings are carried out with microprocessor-controlled Mixmobiles



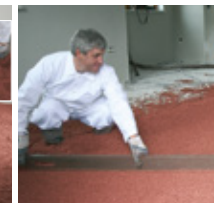
Delivery, mixing and pumping are carried out by the thermotec® Mixmobiles



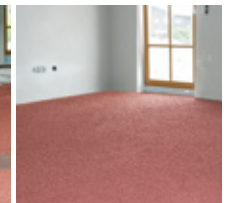
Pour screed (or mortar) into the pockets, compact, and level off.



Rework the connecting edges at the wall and compact the applied surface.



Level off the surface ...



... and done!

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