

Product Data Sheet

AERO-THERM floor



BASIC TECHNICAL INFORMATION

Form of material	water-based sealant
Function	heat reflection, thermal insulation
Composition	filler, dispersion, additives
Application thickness	0.8 to 1.0 mm
Minimum lifetime	25 years provided that application technology is followed

Basic characteristics	Properties/class	Harmonised technical specification
Water vapour permeability EN ISO 7783-2	V1 high	EN 15824
Water permeability EN 1062-3	W1 high	EN 15824
Adhesion EN 1542	0.6 MPa	EN 15824
Adherence EN ISO 4624	1.0 MPa	EN 15824
Durability	NPD	EN 15824
Thermal conductivity λ (W/mK) EN 12667	0.035	EN 15824
Reaction to fire EN 13501-1+A1	F #	EN 15824

meets the requirements without testing, the product is not applied as a final coat to floor structures, or lining; it is assumed that the wear layer will be provided with a resistant coating/material/ and the lining will be covered with paint (paint coat, spray application of paint).

Characteristics	Properties /class	Technical specification
Heat-storage capacity of the material, drop in temperature of contact and evaluation according to ČSN 730540-2	Complies	ČSN 730540-2
Emissivity ϵ , spherical emissivity at 20 °C (Taylor method)	0.83 (-)	(ČSN) EN 12898
Diffusion equivalent air layer thickness s_d	0.11 (m)	(ČSN) EN ISO 7783-2
Density (Specific density) ρ_v	0.440 (g/ml)	(ČSN) EN ISO 787-10 (ČSN) EN ISO 1183-1, part B (ČSN) EN ISO 2811-1
Specific surface density with 1-mm thick layer in dry state ρ_s	0.110 (kg/m²)	Manufacturer's Data Sheet
Density of water vapour diffusion flow rate resistance V	182.3 (g/m².d)	(ČSN) EN ISO 7783
Diffusion resistance factor μ	107.80 (-)	(ČSN) EN ISO 7783
pH value (at 20°C)	7 – 7,5	Manufacturer's Data Sheet
Sensory evaluation of odour	grade 1	(ČSN) EN 1230-1

Description of the Product

AERO-THERM® floor is a thermoactive and insulating coating intended mainly for applying to floors. Thanks to its properties, it influences the energy intensity of structures; it reduces cooling down of floors and decreases heat-storage capacity of the wear layer.

Range of Application

Taking into account the content of the quality filler and the binding agent, AERO-THERM® floor can be applied to various surfaces, such as concrete, gypsum board, OSB boards, metal and others. Application of the AERO-THERM® floor coating contributes particularly to reduction of the energy intensity of buildings and eliminates a feeling of “feet numb with cold”. If the coating is suitably embodied in the structure of the heated floor multilayer, the efficiency of the heating system can be increased.

Specific Properties

AERO-THERM® floor creates a 1-millimetre thick compact and flexible coating on the surface. The structure of the coating is based on its filler as well as on the binding agent enriched with other components. Thanks to its specific properties, AERO-THERM® floor does not have to be protected by a hard stepping (e.g. concrete) layer if soft floor covering is used.

Instructions for Use

AERO-THERM® floor needs a cohesive base free from grease, dust, impurities and moulds. AERO-THERM® floor cannot be applied to bases that are permanently damp, e.g. because of rising dampness, damaged water-proofing etc.

AERO-THERM® floor Preparation

Always start with mixing AERO-THERM® floor itself properly (the material can separate water if stored for a longer time). According to the absorption capacity of the base, you can add clean water; if applied with a spraying machine, the material must be diluted in such a ratio that it flows down the mixing whisk evenly.

Applying

Applying with a notched trowel

When applying the coating to a large flat surface, use a stainless notched trowel with 6mm grooves. At first, apply the coating with the notched side of the trowel and smooth it equally with the straight side of the trowel so that bulges or protrusions will not arise – the material is hard to file off. Pay attention to corners, edges and other details, the coating covering necessary stretches of the adjacent areas must dwindle away.

Applying with a spraying machine

AERO-THERM® floor must be diluted with water so that the material will flow down the whisk you use for mixing (flowing down must not be discontinuous). Low pressure and high pressure spraying machines can be used for spraying.

Pouring

If the base is not even, you can dilute the material to get a consistency enabling you to apply the coating by pouring. After pouring AERO-THERM® floor on the floor, use a stainless notched trowel with 6mm grooves to spread the coating evenly, then use a porcupine roller to make a solid layer, and leave it to “spread across”. Take into account that this way of application requires longer drying time.

Material Consumption

- pasting with a notched trowel - smooth surface 1 litre/m²
- applying with a spraying machine – grit-like textured surface 1 litre/m² + 10% overspray
- pouring – smooth structure 1 litre/m² for flat surface

Dilution

The material consistency is suitable for application with a notched trowel. Dilute with water for applying with a spraying machine.

Application temperature and drying time

The recommendation base temperature for applying is at least 10°C. The drying time depends on air temperature and air humidity (e.g. when the ambient temperature is 20°C and the relative air humidity is approx. 50-60% - the drying time is approx. 16 - 24 hours).

Base

Concrete coatings and self-levelling coatings

Apply AERO-THERM® floor to a mature base (see data sheets for the respective materials). This also applies to local corrections of a base. **BE CAREFULL** when choosing patching materials. When applying by pasting with a notched trowel, **the surface must be provided with a bonding primer.**

Metals and other non-absorbent materials

Remove layers of old non-cohesive coatings. As for the metal base, remove the corroded layer, if any, remove dust and dirt, and apply a primer. It is advisable to apply an appropriate adhesive bridge to non-absorbent bases, such as plastic tubes (e.g. apply a silica sand bonding primer).

Wood and wood-fibre materials

When applying by pasting with a notched trowel, the surface must be provided with a system **bonding primer.**

Gypsum-fibre and gypsum boards

When applying by pasting with a notched trowel, the surface must be provided with a system **bonding primer.**

AERO-THERM® floor Surface Finish

Coatings

Contact the supplier/manufacturer to consult whether the selected material is suitable for applying to AERO-THERM® floor

Tiling and floor tiling

Consult the coating supplier/manufacturer on the choice of adhesive.

Carpets and floating floors

Carpets can be laid straight on AERO-THERM® floor. We recommend installing an impact sound insulation under a floating floor.

Floor heating

Thanks to its properties, AERO-THERM® floor is very suitable for application under both floor-heating systems, the hot-water system and the electric one. We recommend consulting the coating manufacturer before applying the coating.

Cleaning tools

Wash the tools and aids with warm water.

Standard hazard statements

Instruction for safe use:

P102 Keep away from children. **P234** Keep only in original package. **P270** Do not eat, drink or smoke when using this product. **P280** Use protective gloves, protective clothing, goggles, especially when grinding the material. **P284** Use equipment to protect your airways, especially when grinding the material. **P301+312** In case of ingestion: If you do not feel well, call the Toxicology Information Centre or a doctor. **P305+351+338** In case of contact with eyes. Rinse with water carefully for a few minutes. If contact lenses are applied, remove them, if possible. Continue rinsing.

Storage

Store at a temperature from +5 to +25 °C, protect from direct sunshine.
Expiration period is two years in a non-diluted state.

Disposal of packaging and unused material

THERMO INDUSTRY a.s., Na Spravedlnosti 1533, 530 02 Pardubice, Czech Republic, Company Reg. Number: 287 81 481

The rest of material can be disposed as non-toxic waste. Empty containers can be recycled.

In case of doubts, feel free to ask the manufacturer for further information and potential technical support!

Packaging

5 L , 12 L and 30 L

Logistic convenience

Low weight, approx. 0.4 kg/dm³

High yield of the volume per m² of the applied area (1000 m² from 1 m³ with an application thickness of 1 mm)

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Construction-technical certificate
and product certificate