

# ersto Therm®

VACUUM BASED CERAMIC COATING

## TECHNICAL DATA SHEET

ERSTOTHERM heat & cold protection with mould & algae long term protection based on acrylate & vacuum ceramics

### Properties

- Heat and cold protection coating based on acrylate with vacuum ceramic particles
- Integrated mould & algae protection
- U-values of up to 0.0012 W / (m K) possible on substrates
- Has good soundproofing properties
- High biological and chemical resistance
- Water vapour diffusibility
- Breathable
- Overcoatable
- Longevity approx. 10 - 15 years
- Reflects approx. 85% of the radiant energy
- Reduces heat and cold losses
- Significant reduction of energy costs for heating and cooling systems
- UV-resistant
- Protects against condensation moisture

### Surface Preparation

The substrate must be stable, dry, free from sludge, oil, grease and dust and free from all components that act as separating agents. When used on external facades, the concrete, plaster and roof surfaces must be mechanically cleaned of dirt, e. g. by sandblasting, granulate blasting, high-pressure water jet, etc. before application. ERSTOTHERM can be applied as an adhesion primer by adding approx. 50% water. It has very good adhesion properties.

### Processing

Before processing add approx. 5% water into ERSTOTHERM and stir thoroughly.

**ATTENTION: When using stirring machines, a stirring speed of 200 - 300 rpm must not be exceeded!**

Application can be carried out by filling, brushing or airless spraying in one operation. Please do not use a paint roller! ERSTOTHERM has thixotropic properties. Painting ground must not be frozen. The temperature of the substrate must be at least 5° C above freezing point!

### Guideline recommendation for insulation coating

Approximate layer thickness of ERSTOTHERM coatings on heating and hot water pipes

Surface Temp. (°C)	Thickness (mm)
0-40	0,5
41-85	1
86-110	1,5
111-180	2
181-210	2,5
211-260	3

Approximate reduction of the surface temperature with ERSTOTHERM on a metal pipe with a diameter of 150mm:

coating thickness (mm)	Surface temperature / Reduced temperature					
	60°C	80°C	100°C	120°C	150°C	200°C
0,5	42°C	54°C	64°C	68°C	77°C	90°C
1	33°C	42°C	56°C	57°C	64°C	75°C
1,5	29°C	31°C	45°C	51°C	58°C	70°C
2	24°C	28°C	42°C	46°C	50°C	66°C
2,5	17°C	25°C	35°C	39°C	41°C	52°C
3	16°C	19°C	29°C	32°C	37°C	42°C


















Approximate layer thickness from ERSTOTHERM on walls made of different materials:

MATERIAL	WALL THICKNESS	THICKNESS
brick	250	2,5
	400	2
	530	1,5
	670	1
concrete	250	2
	350	1,5
	400	1,5
calydit-concrete	200	2,5
	300	2
	400	1,5
foam-concrete	200	2,5
	300	1,5
	400	1
wood	100	2
	150	1,5
	200	1
metal	0,4	2,5
	0,5	2
	0,8	2

All statements / information about the application, use and performance features of ERSTOTHERM are only recommendations. These have been prepared with due care and caution, but are without any assurances and / or guarantees of any kind with regard to their completeness, correctness or suitability for you specific purpose. The data provided below are based on laboratory applications with small test equipment under standard conditions and do not necessarily correspond to the production conditions in industrial applications. New knowledge and experience can lead to reassessments and changes at short notice and without notice.

## Technical Data



 <b>Based on:</b> styrene acrylate / vacuum Ceramics	 <b>Viscosity:</b> thixotropic	 <b>Operating temperature:</b> from -60° C to +200° C (depending on execution)
 <b>Colour:</b> white	 <b>Dry content:</b> approx. 50% - 55%	 <b>Processing temperature:</b> +5° C up to +30° C
 <b>Gloss:</b> dull / matt	 <b>PH value:</b> 7,5 - 9,5	 <b>Consumption:</b> 1-1.5 m <sup>2</sup> /liter at 1mm layer thickness depending on surface finish
 <b>Odour:</b> product specific	 <b>Drying Time:</b> approx. 24h (20° C)	 <b>Delivery form:</b> 10 and 20 liter disposable plastic buckets
 <b>Density liquid at 20° C:</b> approx. 500 kg/m <sup>3</sup>	 <b>Effect:</b> Thermal insulation, Noise reduction, Mould&Algae protection, Residual Elasticity	 <b>Shelf life:</b> Frost free 12 months
 <b>Density dry at 20° C:</b> approx. 390 kg/m <sup>3</sup>	 <b>Thermal conductivity:</b> up to 0.0012 Wm <sup>2</sup> K possible on substrates	

## Protection & security

ERSTOTHERM insulating wall coating is solvent-free.

ERSTOTHERM is strictly to be used in its original form and according to instructions. It must not be mixed with other liquids or colours, enriched or diluted! Permitted exception: Tinting concentrate from Mixol in the pastel area, maximum 5% by volume. After the drying process, the space can be used again without restrictions. Ventilate rooms well!

Remaining material should be sealed air tight in the original container and used within 3months. After the remaining material has dried out, the container can be disposed of with household waste. Keep material away from children! ERSTOTHERM is safe for use in inhabited areas.

You are strictly advised to read and comply with the Technical and Safety Data Sheet.

ERSTOTHERM is free of nanoparticles and silver ions (nanoparticles and silver ions are highly absorbable and toxic for human skin)

This information reflects the current state of development.

Since application and processing is carried out externally and beyond our control, no liabilities can be derived from the application.

Always read labelling and product information before use.

Use biocidal products safely!

## Area of application

- Thermal insulation on facades, walls, ceilings, window reveals and roofs as well as other mineral, wooden and metal substrates. Suitable for use in living and working rooms, indoors and outdoors.
- Insulates permanently existing thermal bridges
- Applicable on almost all mineral, metal and wooden surfaces in the INSIDE and OUTSIDE areas.
- Overpaintability of old coats has to be checked for each individual case (apply test area).
- The safe insulation for heavily weathered facades and concrete surfaces, especially with high driving rain loads and for protection against aggressive atmospheres.

We recommend always to determine the optimal layer thickness for ERSTOTHERM by preliminary laboratory or experimental tests in order to achieve the desired insulation performance on the selected substrate.

## Equipment cleaning

Clean equipment after use with cold water.

## Contact

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