



 MADE  
IN  
GERMANY

**ersto**  
**Therm**

VACUUM BASED **CERAMIC COATING**

Thermofunctional Coating for  
Surface Temperature Optimization  
Improved thermal comfort.

Reduced condensation risk.  
Developed for building-physics-  
sensitive areas.



## PRODUCT PROFILE

erstotherm is a thermofunctional specialty coating featuring vacuum-ceramic technology for the optimization of wall and ceiling surface temperatures.

The system was specifically developed for areas where conventional insulation measures are technically limited, economically impractical or difficult to implement.

The vapor-permeable functional coating supports a more balanced surface climate, reduces condensation-critical conditions and noticeably improves thermal comfort in interior spaces.

## DEVELOPED FOR BUILDING-PHYSICS-SENSITIVE PROBLEM AREAS

Condensation, cold surfaces and localized heat loss often occur where structural weak points or limited insulation possibilities exist.

This is exactly where erstotherm is designed to perform.

The coating optimizes the thermal behavior directly at the surface level and thereby supports more stable and drier wall conditions.

## THERMAL FUNCTION & MOISTURE MANAGEMENT IN ONE SYSTEM

Surface Temperature Optimization

The vacuum-ceramic material structure supports:

- optimization of critical surface temperatures
- reduction of localized thermal bridge effects
- a more balanced temperature profile within the room
- minimization of condensation-critical areas

## SUPPORT FOR DRY SURFACE CONDITIONS

By improving surface temperatures, the formation of moisture films and condensation can be significantly reduced.

As a result, erstotherm supports:

- reduction of mold-promoting conditions
- a more stable indoor climate
- improved thermal comfort and room perception



## VAPOR-PERMEABLE SYSTEM TECHNOLOGY

erstotherm remains highly vapor permeable and supports balanced moisture behavior within the surface structure.

**This helps to:**

- avoid moisture accumulation within the coating system
- maintain building-physics-active surfaces
- make the system suitable for sensitive renovation and historic building applications

## TECHNICAL CLASSIFICATION

erstotherm is a thermofunctional coating and not a conventional thermal insulation system according to current insulation regulations or energy-efficiency standards.

The system is designed for the targeted optimization of thermally critical surface areas and serves as an efficient complement to existing building-physics measures.

## FEATURES & BENEFITS

- optimization of critical surface temperatures
- reduction of condensation and moisture formation
- support for mold-preventive measures
- vapor permeable & building-physics active
- solvent-free & low-emission
- elastic & crack-bridging
- thin-layer and flexible application
- compatible with all ERST systems
- suitable for renovation and existing buildings
- improved subjective thermal comfort

## TYPICAL AREAS OF APPLICATION

**Interior Areas with Thermal Weak Points**

- interior sides of external walls
- window reveals & ceiling junctions
- stairwells & basement areas
- poorly insulated wall sections
- rooms with increased moisture exposure
- renovation and historic building projects

**Particularly Suitable for:**

- structural thermal bridges
- localized problem areas
- areas with limited insulation possibilities
- building-physics-sensitive interiors

## Part of the ERST System for Moisture Control, Indoor Climate & Mold Prevention

erstotherm forms part of a comprehensive ERST system solution for improving surface climate, indoor air quality and building-physics stability.

## RECOMMENDED SYSTEM COMBINATIONS

| Problem Area                                 | Recommended Combination                            |
|----------------------------------------------|----------------------------------------------------|
| Mold-prone interior surfaces                 | erstomould + erstotherm                            |
| Thermal bridges & condensation               | erstotherm + erstoair                              |
| Combined moisture, temperature & mold issues | erstoplast + erstomould +<br>erstotherm + erstoair |
| Condensation at window reveals               | erstotherm + erstoair                              |
| Thermal optimization in existing buildings   | erstotherm +<br>building-physics measures          |

## APPLICATION

erstotherm can be efficiently integrated into renovation and thermal optimization concepts.

### Application Properties

- applicable by roller, brush or spray
- multi-layer application possible
- suitable for various substrates
- vapor-permeable coating structure
- flexible adaptation to project-specific requirements

### Surface Preparation

- stable and clean substrate required
- removal of loose or unsuitable existing coatings
- leveling of critical uneven areas where necessary





## TECHNICAL OVERVIEW

| Property            | Description                                               |
|---------------------|-----------------------------------------------------------|
| Binder system       | Specialty dispersion                                      |
| Technology          | Vacuum-ceramic hollow microspheres                        |
| Vapor permeability  | Yes                                                       |
| Solvents            | Solvent-free & low-emission                               |
| Area of application | Interior, selected exterior system applications           |
| Application methods | Roller, brush, spray                                      |
| Functional effect   | Surface temperature optimization & condensation reduction |

## FAQ

### Does erstotherm replace conventional insulation?

No. erstotherm is a thermofunctional coating designed to optimize thermally critical surface areas and does not replace conventional insulation systems according to energy-efficiency regulations.

### Can erstotherm help reduce condensation and mold formation?

Yes. By improving surface temperatures, condensation-critical conditions can be reduced, thereby minimizing mold-promoting environments.

### How does erstotherm affect room comfort?

Rooms feel thermally more balanced and comfortable due to the reduction of cold surface zones.

### Can erstotherm be used outdoors?

Yes, but only within approved system configurations and project-specific applications.

## ERST – System Solutions for Building Physics, Surfaces and Indoor Climate

Scientifically grounded. Proven in practice. Designed for long-term performance.



CONTACT

**ERST**



**ERST GmbH**  
Aiterhofener Str. 4  
94330 Salching, Germany  
+49 9426 76 33 033  
[info@erst.de](mailto:info@erst.de)  
[www.erst.de](http://www.erst.de)

