HEIQ

Transparent heat-reflecting coating

NEW

SIMPLE, RAPID, AND LOW-COST WAY TO **IMPROVE ENERGY EFFICIENCY OF BUILDINGS**

HeiQ Xpectra is a transparent heat-reflecting coating that lowers the thermal transmittance of walls by up to 25% 1. With a single application, it improves energy efficiency and thermal comfort while preserving your surface aesthetic.

Across the EU, over 100 million buildings must improve their energy efficiency class by 2033 under the Energy Performance of Buildings Directive (EPBD). HeiQ Xpectra provides a simple, rapid and low-cost solution.

HOW DOES IT WORK?

HeiQ Xpectra is a micrometer thick low-e coating technology that utilizes an embedded transparent network of precious metal wires in silicate binder.

By lowering thermal emissivity to $\varepsilon = 0.26^{\circ}$, HeiQ Xpectra improves the U-values up to 25% 1. It is water vapor permeable $(s_d < 0.01 \text{ m})^3$, safe-to-use, and cost-efficient. Applied at just 90 g/m² using standard spray equipment, HeiQ Xpectra ensures a rapid and simple application.

- ¹ Center of Applied Energy Research (CAE), Calculations conducted according to **DIN EN ISO 6946**
- ² Center of Applied Energy Research (CAE), Report CAE 1024 b (Oct 2024)
- ³ Fraunhofer IBP, DIN EN ISO 7783, Report HoFM-054/2024







allows Moisture Control Design compliant with

- EN 15026
- ASHRAE 160 DIN 4108







Development partners



SIMPLE. RAPID. LOW-COST.

Thermal camera image: HeiQ Xpectra treated wall Untreated wall

OUTSTANDING QUALITIES

Transparent yet effective:
 A nearly invisible coating that enhances heat reflection

· High thermal efficiency:

Low emissivity of ϵ = 0.26 reduces U-values of walls by up to 25% and enhances insulation behavior, reflecting up to 74% of incident heat radiation for optimal energy efficiency and comfort

Permeable:

High water vapor permeability (s_d < 0.01 m)

Safe and easy to apply:

Safe-to-use, works with standard paint spray gun for efficient application

Stable:

QUV test reveals no color change even after 1,000 hours

• Resource-conscious:

Minimal material usage (90 g/m²) ensures cost-efficiency

ADDED VALUE

· Energy efficiency:

Reduces energy use and heating costs, while improving thermal comfort

Retrofitting solution:

Ideal for improving the energy-efficiency class of buildings

Aesthetic preservation:

Maintains visual integrity of surfaces



Are you interested in HeiQ Xpectra? Get in touch!

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