



Power Smart Coat (PSC)

Power Smart Coat (PSC) is a revolutionary insulation material based on modern **nanotechnology and closed microspheres**. In contrast to conventional insulation materials like polystyrene or mineral wool, which require a thickness of at least 10 cm, PSC can be applied in a thin layer of only **0.4 to 5 mm**. This innovative solution not only saves space, but also weight, and completely replaces traditional insulation methods.

Particularly suitable for renovation projects, including heritage-protected buildings.

by A-Euro Ergo I.K.E





How does PSC work?

1

UV and IR Radiation Reflection

PSC is characterized by an impressive reflection factor of 92%, which effectively reflects both UV and infrared radiation. The TSR value (Total Solar Reflectance) of over 92% shows that a large part of the incident sunlight is reflected back from the surface.

2

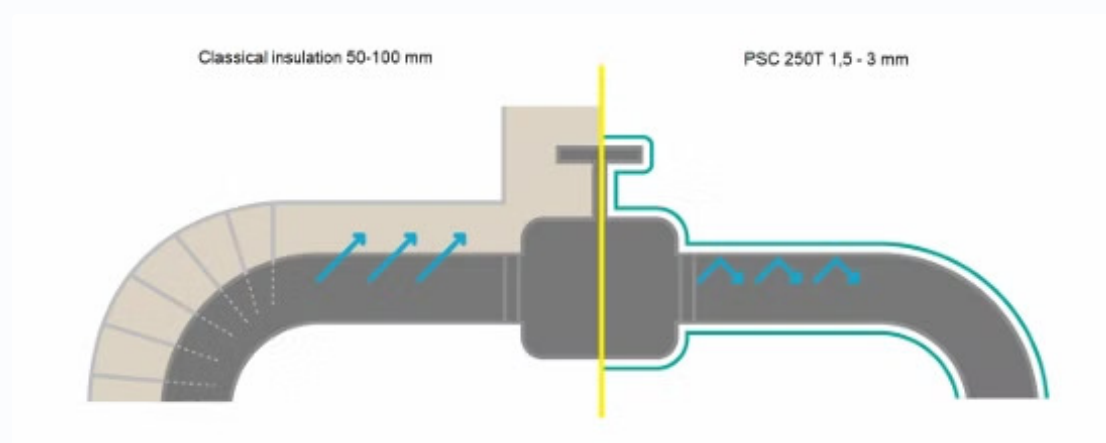
Absorption and Dissipation

The remaining radiation is absorbed and dissipated by the special materials in PSC, which minimizes heat transfer.

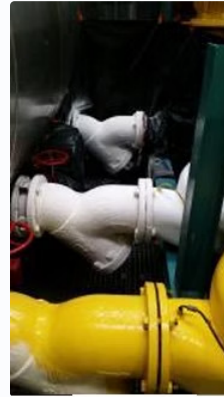
3

Infrared Test

Temperature tests on metal plates impressively demonstrate how PSC effectively reduces heat transfer at different coating thicknesses.



Technical Properties of PSC



1

Temperature Resistance

PSC is extremely temperature resistant and can **withstand temperatures from -200°C to +200°C**. It can even be applied directly to hot surfaces up to +150°C.

2

Reflection and Material

With a reflection rate of up to 92% of infrared radiation, PSC provides excellent protection. The material is based on microspheres and is available in various color tones.

3

Water and Corrosion Protection

PSC is not only waterproof, but also offers high protection against corrosion. Both properties are certified.

Comparison:

PSC vs. Traditional Materials

PSC

- Stable thermal insulation, independent of moisture
 - Waterproof and corrosion resistant
 - UV-stable, lifespan of 10-20 years
 - Quick application without plant shutdown
 - Simple spot repairs possible
- quick/inexpensive installation by spraying
 - can be mixed in custom colors



Mineral Wool

- Insulation performance is affected by moisture
- Requires additional protective measures
- Requires UV protection and more frequent replacement
- More complex application and repair process
- Complete replacement often necessary for repairs

Application Areas of PSC



Industry

Suitable for production processes, oil & gas, food, pharmaceutical and chemical industry, energy sector, shipbuilding and agriculture.



New Construction & Renovations

Applicable to metal, wood, walls, plastics, facades and PVC (except polypropylene). **Usable both indoors and outdoors.** Can be used for steam, hot and cold water distribution, boilers, pipes, valves and heat exchangers.



Benefits

Reduces energy consumption and carbon footprint, protects against corrosion, is moisture and UV resistant, non-toxic and long-lasting.





Case Studies and References

Biomass Power Plant in Thailand

Replacing the standard insulation with PSC led to significant cost savings. PSC could be applied directly to hot surfaces without interrupting operations.

Kokerei Zarmen Group

Long-term stability and corrosion protection were successfully implemented in various projects.

Additional References

Successful projects with GRUPA AZOTY, Heineken, Michelin, Linde and many others demonstrate the versatile applicability and reliability of PSC.

Summary and Contact

1

Comprehensive Solutions

PSC offers versatile application possibilities for cross-industry work.

2

Effective Insulation

Combines effective thermal insulation with high durability and easy application.

3

Contact

We are happy to provide you with further information and answer any specific application questions.

