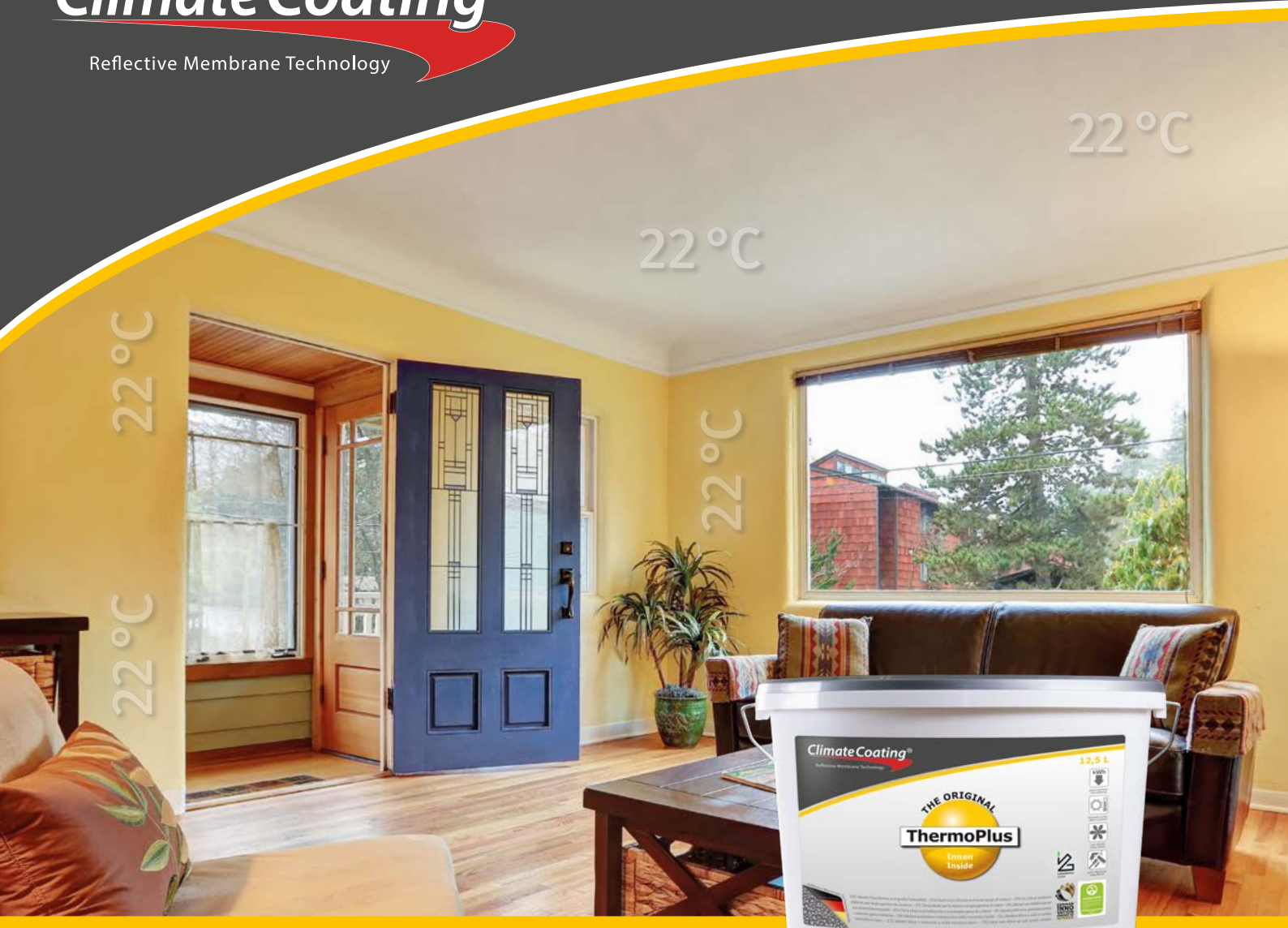


Climate Coating®

Reflective Membrane Technology

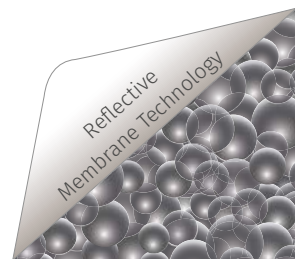


ThermoPlus

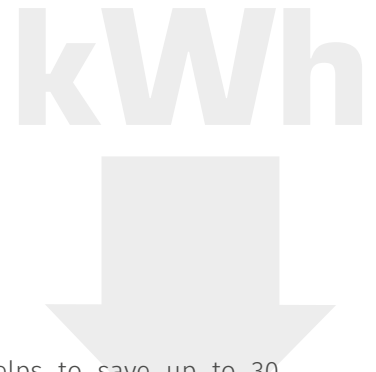
Ideal indoor climate and energy savings



GERMAN
**INNOVATION
AWARD '18
WINNER**



ThermoPlus – Feel good and save heating energy



ThermoPlus is a highly effective coating for interior walls and ceilings that helps to save up to 30 % of heating energy. Like all *ClimateCoating®* coatings, *ThermoPlus* is based on reflective membrane technology and works purely physically. The environmentally friendly and high-performance interior wall paint impresses users worldwide with its special properties and high cost-effectiveness.

The *ThermoPlus* functional coating creates a pleasant indoor climate at any time of year, helps to save energy, extends renovation intervals and offers a wide range of colours.

Saving heating energy with ThermoPlus

by Dipl.-Ing. Matthias G. Bumann

One of the most common tips for saving energy is to simply turn down the heating. 6 % heating energy savings for every 1 °C less is the often-quoted thumb value (consumer advice centre, co2online, Ökotest, etc.). It's hard to imagine feeling comfortable in winter at the currently recommended room temperature of 19 °C, even when wearing two jumpers. The problem of the lack of thermal comfort lies in particular in the unpleasantly low envelope surface temperatures (= temperatures of ceiling, walls and floor), which affect both the sensory temperature (operative temperature) and the risk of mould that arises when the room cools down.

With the interior paint ThermoPlus, SICCC Coatings offers a way to achieve energy savings of up to 30%. A look at the past shows documented savings values (slightly rounded):

- 40 % (J. Steufkens, Kevelaer, 2005, heating bills)
- 30 % (a flat in Berlin, 1998)
- 25 % (a flat in Ebenweiler, 1998)
- 25 % (a classroom in Prevalje, Slovakia, 2005)
- 20 % (Hotel Montana in Disentis, Switzerland, 1999)
- 15 % (day care centre in Rövershagen, 1999, only exterior wall/ceiling treated)

The realisation that the physically effective membrane of the ThermoPlus interior wall paint makes the room warmer and more pleasant has convinced many users. The heating could be turned down - another energy saving!

Prof Dr-Ing Peter Marx from TFH Berlin carried out indoor climate analyses between 2005 and 2019, thereby objectifying what many people have already empirically established. And indeed, it was always a question of comparing ThermoPlus with conventional wall paint - particularly regarding the radiant temperature - in almost identical rooms:

- 2005 Office building of Deutsche Welle in Bonn
- 2009 Library building in Stockholm
- 2014 in the retirement home in Driebergen, NL
- 2015 in the retirement home in Amersfoort, NL (among others)

The coating acts as a heat barrier in the interior. These effects have been proven by measurements over the years:

- Raising the surface temperature and thus improving the operating temperature
- Reduction of temperature differences between wall surfaces near the ceiling and floor
- Conducting heat into geometric thermal bridges (ceiling-Xel)
- Influencing the room humidity to the optimum at approx. 55 %

The mechanisms for saving energy are explained in a study as follows:

„The heating energy-saving effect of the ClimateCoating® interior coating has been empirically and metrologically proven. Indoor climate analyses confirm the positive influence on the indoor climate, the improvement in thermal comfort

Rooms coated with ClimateCoating® heat up more quickly and cool down more slowly. Regardless of the heating system and in comparison to conventional coatings, a higher surface temperature is achieved with the same energy input, which increases the perceived temperature (operative temperature).“

→ *ThermoPlus* as an interior coating on walls and ceilings - A study on reflection, backscattering, and coziness
(DOI: 10.13140 / RG.2.2.31452.87682, 29.09.2022, 29 Seiten)

www.researchgate.net

www.academia.edu

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Picture left: The interior walls and ceilings in the villa in Krommenie (NL) were treated with *ClimateCoating® ThermoPlus*. The coating reflects heat radiation and thus equalises temperature differences. As a result, a significant proportion of the heat remains in the interior, which saves heating costs. Photo: Henk van Leeuwen, ClimateCoating Benelux BV, NL. **Picture right:** Salwator cemetery chapel in Kraków (PL). The interior coating with *ThermoPlus* in white ensures dry walls. The improved heat distribution has a positive effect on the perceived temperature. Photo: Janusz Błachowicz, Solarem, PL.

Application area, properties and processing



ENERGY-SAVING

- Up to 30% savings in heating energy by
 - raising the surface temperature
 - reduction of temperature differences between wall surfaces near the ceiling and floor
 - reduction of thermal bridges
 - Anti-electrostatic effect, which reduces the build-up of dirt on the walls and thus extends the intervals between renovations, saving material and financial resources.



COMFORTABLE

- influencing the indoor air humidity to the optimum at approx. 55%
- improvement of the room climate
- increase in living comfort



DECORATIVE

- for interior
- matt
- good coverage
- over 100,000 colour shades to choose from
- very high colour stability



ENVIRONMENTALLY FRIENDLY

- water-based
- mild odour
- very low VOC
- free of aromatics
- without organic solvents



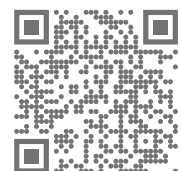
CONTAINER SIZES AND PROCESSING

- ready-to-use dispersion
- consumption (depending on the substrate) approx. 330ml/sqm with 2 coats
- 2.8 / 5.0 / 12.5 / 19.0 litres in oval or round buckets
- simple application by brush, roller or spraying
- cleaning of used tools with water



ThermoPlus – The functional coating and interior wall paint with the plus. We are happy to answer your questions about the product and processing.

www.climatecoating.com/en/products/thermoplus



Better indoor climate and more comfort even in ...



... event rooms (IT),



... medical practices (D),



... historical buildings (NL),



... and stairwells (FR).

*Are you looking for a paintable solution for interiors?
Then get in touch with us. We will be happy to share
our worldwide practical experience with you.*

info@sicc.de

Your authorized dealer:

ClimateCoating[®] – Intelligent coatings with added value.
For buildings, interiors and industrial applications.
Environmentally friendly. Powerful. Effective.

Made in Germany. Made for you.

SICC Coatings GmbH from Berlin is the leading specialist supplier of climate-active coatings with the longest experience in all climate zones and application areas. The functional coatings are based on the reflective membrane technology. For the energy-saving effect of the technology, SICC Coatings was awarded the „German Innovation Award“ in 2018 as well as with the „Energy Efficiency Award“ in Singapore, among others. SICC Coatings works according to the standards for quality management and environmental management in accordance with DIN EN ISO 9001:2015 and 14001:2015.

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