



Problem definition

The house in Portugal was often uncomfortable and cold in winter.

The only remedy was the open fireplace in the living room; the rest of the house remained too cool.

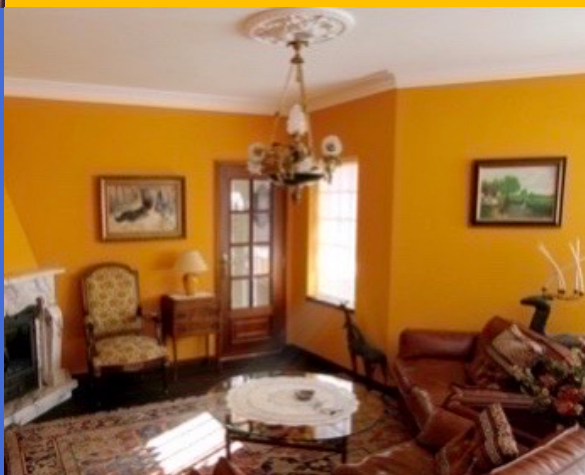


The owner wanted to improve the year-round indoor climate without installing insulation.

Wall construction: reinforced concrete column construction with fired hollow clay bricks

Construction from the inside to the outside:

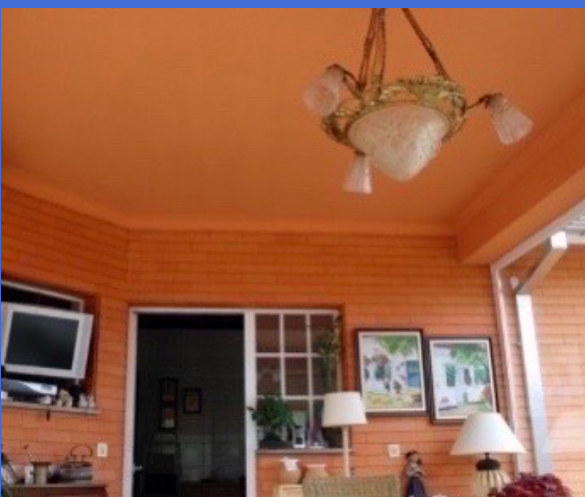
Plaster 1 cm / hollow clay brick fired with large chambers, 30 cm / external plaster 1 cm Adhesive 1 cm / clay brick slips 2 cm



Solution

Coating with **ClimateCoating® ThermoPlus**: The owner measured various temperature values before, during and after painting. To do this, he sought an average value for a meaningful measurement at the various points.

While the measured values changed considerably before painting due to deviation from the measuring point, the effect was very much equalized afterwards.



Private House Portugal

ClimateCoating® ThermoPlus

Raising surface temperatures and reducing indoor air and wall humidity

Result

The series of measurements in the building proved that **ClimateCoating® ThermoPlus** raised the surface temperatures and at the same time evened out the temperature across the surfaces - the sensory temperature increased.

The owner reported: "I've had a three-sided glazed veranda with **ClimateCoating®** on the ceiling since March 13, I'm always at least 3 degrees higher than outside, no matter what the weather is like outside, I almost always have the sliding door open because of the pets and I feel better than ever; in contrast: all the neighbors' chimneys are smoking!"

Interested? Then please contact us.

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Private House Portugal

Evaluation of temperature curves
after painting in March / April 2008



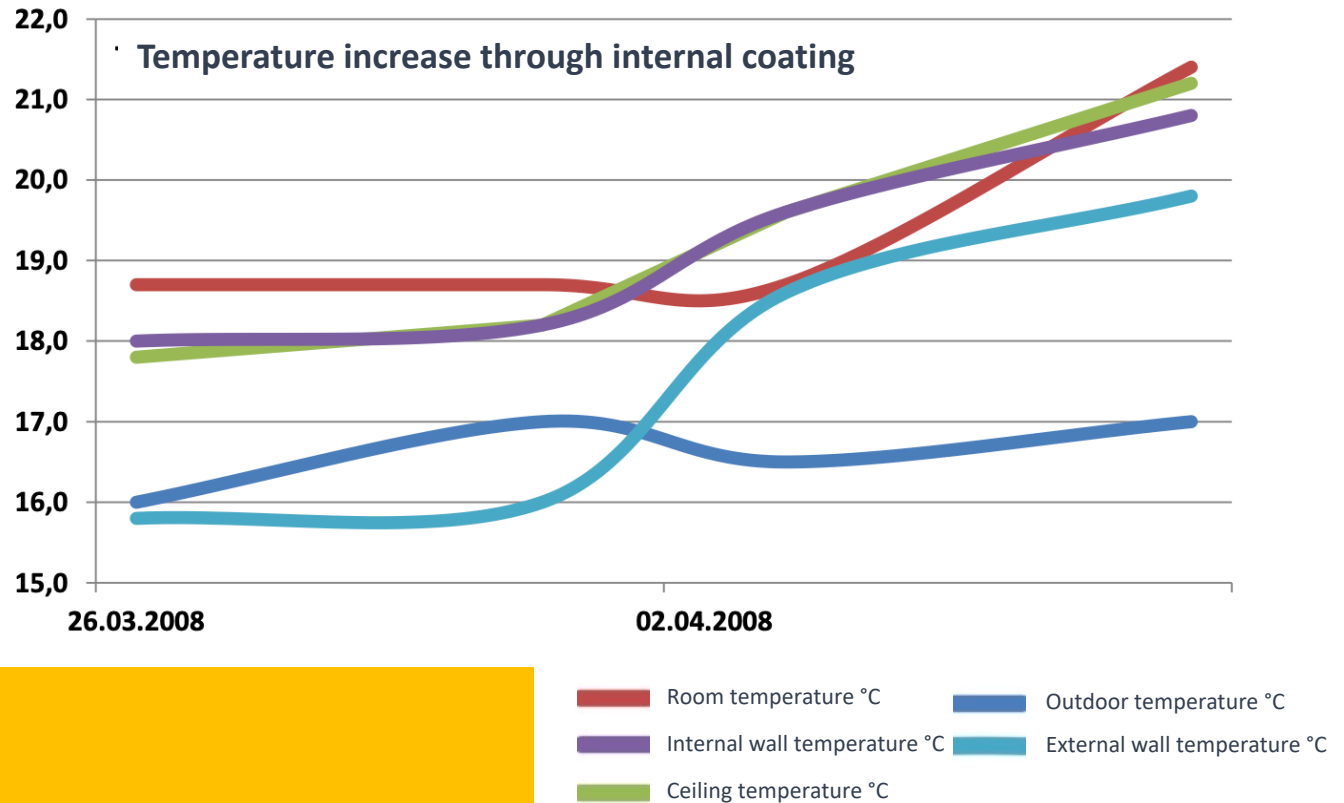
To evaluate the measurement results, the owner of the house (a heating engineer by profession) corresponded with a Berlin building expert. The issue was the suitability of the U-value theory:

"I can only agree with what you write in relation to the U-value. Question: Why do you feel more comfortable with ClimateCoating® with a lower room temperature and yet the temperature profile in the wall structure should be worse than without it?

I noticed the effect when I painted half the ceiling, it was definitely no longer a cold spotlight.

According to my measurements, you can already see that at least the contact resistance inside must be wrong, as I had surface temperatures equal to room temperature or even higher!

This cannot be understood using the normal calculation method, and if I hadn't measured it myself, I would assume that there was a measurement error."



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