

Reflective surfaces - little effort, big effect

Windows are a major gateway for summer heat. It is generally emphasized that real heat protection is only effective from the outside, as internal sun protection provides shade but does not offer any substantial reduction in heat radiation. A comparative test in an old apartment in Potsdam shows that this is not true when the right material is chosen.



The tenants of the listed, spacious old apartment in Potsdam had a serious problem: the large window fronts and all-day exposure to the sun made it unpleasantly hot in summer.

Particularly in the two corner rooms in front, the indoor temperatures in summer could easily reach 40°C, despite the thick white curtains that the landlord had installed.

As one of the rooms houses the kitchen and it was therefore impossible to reduce its use in hot weather, the tenants decided to have the blinds replaced with highly reflective special fabric.

The material with a solar reflection of 85% still allows a basic level of visible light through, so that a pleasant lighting atmosphere prevails inside even in bright sunshine - a point that was important to the tenants in order to avoid the need for artificial light during the day in midsummer.

The temperature difference in the two corner rooms was measured comparatively during a heat period and the extent of the temperature difference surprised everyone involved:

Up to 10°C lower values for the daily maximum were measured in the room with the special curtain, even though additional heat was generated in the room due to the cooling chimney and cooking activities.

Based on the measurement, the tenants decided to also equip the large box-type windows facing west, which expose the living room to direct sunlight until sunset, with this heat protection.

Would you also like to easily solve heat problems in your building? As an independent specialist in energy-neutral climate control materials, we will be happy to advise you and find a tailor-made solution for you.



Focus:
Heat

