

Normal Interior Paints

Normal interior paints are mainly used for color design. The moisture occurring in living spaces and caused by people is absorbed by walls and ceilings. The better the dehumidification, i.e. the less evaporation energy is generated on the enclosing surfaces of a room, the faster thermal comfort is created and less energy is required to heat the air in the room. Since the moisture absorbed by the wall/ceiling can usually only be released back into the room air through high energy input (heating/ventilation), discomfort and high heating costs are the result throughout the entire phase change. At the same time, constant moisture transport processes into the wall/ceiling and out of the wall/ceiling transfer pollutants into the indoor air, which has a considerable impact on the health of the occupants.

THERMOLINE INTERIEUR Interior Paints

THERMOLINE INTERIEUR, due to its special composition and structure, increases the moisture-absorbing surface by approximately 30 to 40 times. Moisture molecules can dock on the enlarged wall and ceiling surfaces under normal living space load without reaching the depth of the wall/ceiling. This makes the moisture that occurs easy to ventilate off without extreme addition of energy. The fast ventilating humidity shortens the phase change and enables fast thermal comfort due to the dry and heatable surface. The heating cost savings are up to **25%**. At the same time, due to the lack of moisture transport processes into and out of the wall/ceiling, pollutants (radon, thoron, etc.) are not transferred into the room air, which is only beneficial for the health of the occupants. **THERMOLINE INTERIEUR** paints have been tested for building biology with the rating "excellent" and guarantee the best indoor air quality.

Normal Facade Paints

Normal facade paints reflect the sunlight spectrum of 400-2500 nm only in freshly stripped condition to approx. 80%. Only a few months after application of facade paints, the reflective property is reduced from approx. 80% to only approx. 45%. The result is embrittlement, micro-crack formation and absorption of capillary moisture from the outside air, which is 100% saturated with relative humidity. Only 4% damage moisture above the basic moisture content of the component/external wall reduces the insulating behavior of the external wall by approx. 50%. With the increased component moisture (moisture transports heat), large amounts of heating energy are consumed.

THERMOLINE EXTERIEUR Facade Paints

THERMOLINE EXTERIEUR prevents rapid surface embrittlement due to its special composition and structure. Thus, the glass-filled paints **THERMOLINE** EXTERIEUR are largely resistant to acids, alkalis, high and low temperatures. The reflective property of the surface is preserved. Approx. 20% of the solar radiation can penetrate through the glass-filled membrane into the building component and leads to the heating of the building component. Moisture from the surrounding outside air cannot be absorbed, the moisture already existing in the component/wall can be better evaporated in the component/wall by the solar radiation. This enables optimal insulation properties of the exterior wall and reduces heating energy consumption by up to **15%**.

Conclusion

When using **THERMOLINE** EXTERIEUR facade paints and **THERMOLINE** INTERIEUR interior paints, heating costs are reduced by up to **30%**, depending on the existing building structure, through component moisture regulation, reflection and conditioning of the air in the room.