

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 ceiling. Air conditioning systems are dehumidification systems and have the task of cooling the room air after dehumidification. The better the dehumidification, the less energy is needed to cool the room air. Since the moisture absorbed by the wall/ceiling can usually only be released back into the room air by using a lot of energy, air conditioning/dehumidification systems are in continuous operation. Electric air conditioning/dehumidification systems are therefore very cost-intensive.

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 significantly affects 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 this enlarged wall/ceiling surface under normal living space load without reaching the depth of the wall/ceiling. This makes it possible to ventilate the moisture easily and without extreme energy input. The quickly ventilated moisture relieves air conditioning systems and enables fast thermal comfort. The energy savings of the cooling loads are up to **20%**.

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 indoor 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 and the accompanying heat input (moisture transports heat) with insufficiently reflecting facade surface, air conditioning systems are extremely stressed and consume large amounts of electrical energy.

THERMOLINE EXTERIEUR Facade Paints

THERMOLINE EXTERIEUR prevents rapid surface embrittlement due to its special composition and structure. Thus, these glass-filled paints are largely resistant to acids, alkalis, high and low temperatures. The reflective property of the surface is preserved. 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. Sprinkled facade surfaces dry very quickly. Thus, the cooling loads are made possible by optimal insulation properties of the outer wall and the energy consumption of air-conditioning/dehumidification systems operated in the living spaces is reduced by up to **20%**.

Conclusion

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