The insulating paint, after being applied, improves the heat transfer in the room and thus increases the temperature by $3-5^{\circ}$ C, while other heating parameters are unchanged.

In standard conditions, the transfer of heat in a room heated with a radiator or underfloor heating system usually occurs through convection. The air close to the radiator warms up and rises to the ceiling. Then it cools down and falls back. This mechanism is an example of uneven heat transfer in the air flow. It also carries dust, mite, pollen and thus can have bad influence on our health. Due to the convection, the temperature difference between the ceiling and floor is approximately 4° C.

In the room coated with an insulating paint, the heat radiation generated by radiators is transferred and reflected off the walls in all directions. This thermal system is more homogenous and displays the temperature difference only up to $1,5^{\circ}$ C. The comfort of the room is also improved, people feel better and have weaker allergic reactions and there are no electrostatic charges. An additional advantage of using the insulating paint is the anti condensation process on cold bridges which prevents mould and bacteria growth on kitchen and bathrooms walls. The thermal homogeneity helps to reduce the maximum heating temperature and the minimum cooling temperature which, in effect, saves up to 30% of energy.

To sup up, the surface coated with the insulating paint works like an insulation through the reflection of radiation, humidity stabilisation and heat distribution. Due to its flexibility, the coating covers all the micro cracking. The paint is breathable and allows water vapour to travel. It eliminates cold bridges and thus dramatically reduces the mould growth.

Properties	Technical parameters
Density at 20 [°] C	$0,7 - 0,80/\text{cm}^3$
Brookfield viscosity L3 RPM5	app. 20000
Volume solids	around 50%
Dry film thickness	min. 0,25 millimetres
Wet scrub resistance according to PN-EN13300:2002	Class 2
Gloss level	Matt

Preparation of the base

The surface to be coated should be in sound condition, clean, dry, without cracks or loose material. Clean the base, fill in cracks or holes and apply an acrylic primer, e.g. Bauter primer. After drying, apply paint with a brush, a roller or a pneumatic spray gun.

Painting

Before use, stir the paint well. Apply two coats to obtain the film thickness of min 0,25 millimetres. After the first coat has dried, that is after 2-3 hours, the second coating can be applied. The drying time depends on the air temperature at the time of application - the recommended range of temperatures is between $15-30^{\circ}$ C. This range of temperatures favours to achieve an excellent film quality.

White is the basic colour and it can be tinted with colouring pastes to any desired colour.

Coverage

The paint covers up to 6-8 square metres per litre, when applying one coating; with two coats, the paint covers 3-4 square metres per litre.

Application

Coating work is possible at temperatures between $5-35^{\circ}$ C although it is better to paint at temperatures between $15-30^{\circ}$ C and humidity level of 60% which allows to achieve excellent parameters of the thermal coat.

Cleaning up tools

Brushes and rolls should be cleaned up with water; spray equipment should be cleaned in accordance with the producer's manual.

Precaution measures

During coat work all the safety rules should be obeyed as stated in the safety data sheet. Keep the product away from children and avoid children presence in the rooms being painted.

Storage

The insulating paint should be stored, like any other water-thinned products, at temperatures between $5-25^{\circ}$ C.

Packaging

Insulating paints come in 5- and 10- litre plastic buckets.