

Technical and material data sheet

ALPHA INNER



Reflective insulation
coatings



Downloads

ALPHA INNER is an interior coating for use on the walls of residential and office buildings. Resistant to dirt, resists mould and mildew. Its properties produce a synergistic effect in reducing surface heat transfer and thus the coating can save significant amounts of energy for heating or cooling.

ALPHA INNER coating is designed as an internal "insulation" to increase the effect of reflecting heat energy back into the room. The coating reflects 92% of TSR and up to 97% of visible light. The coating is non-toxic, environmentally friendly and non-hazardous.

Main properties

- Indoor interior coating
- Prevents heat from escaping from the building during the winter months
- Prevents overheating of the building in the summer months and creates a pleasant indoor climate
- Significantly reduces energy costs for cooling or heating
- Prevents mould on walls
- Resists surface condensation
- Can be coloured in RAL shades

Application

ALPHA INNER is used as an interior coating.

Technical properties

Theoretical consumption ¹	0, 1 litres / m ² / layer thickness 150 µm
	0,24 litres / m ² / layer thickness 180 µm
	0,30 litres / m ² / layer thickness 200 µm
Practical consumption	Practical consumption depends on many factors such as porosity, surface roughness and material loss during application.
Dilution	Not diluted

Recommended wet film layer	300 µm
Stirring	Always the whole package after opening, with a construction mixer or auger mixer on a drill, at approx. 150 rpm.
Stirring during prolonged application	Stir every 40 minutes
Packing	18 litres / 9.88 kg
Density	0,54 g/cm ³
Appearance	White, whiteness 96 %
Colour	Yes, waterborne paste/pigment
Gloss level	Matte
Odour	Odourless
Shelf life ²	24 months, must not freeze
Flash point	Non-flammable

Recoatingability and curing time ³

To the touch	1 hour
For handling	2 hours
For the next layer	3 hours
Fully dry	24 hours

Safety instructions

Read the Technical and Safety Data Sheet

1 Consumption depends on the surface

2 Stored in original and sealed containers at a temperature between +5 °C - +35 °C

3 At +20 °C and 50% PH

Surface preparation

The surface must be free of loose elements, dry, firm, free of oil and grease stains, free of dust, mould, salts, rust and old incoherent coatings. The surface must be perfectly hardened and structurally uniform. Before applying the technology, the surface must be perfectly mature. We first apply to fresh plaster after it has dried completely.

Suitable for all porous surfaces, such as concrete, raw masonry surfaces, stone, unglazed ceramics, plaster, plasterboard, etc., where the ALPHA PRIMER CT primer or ALPHA ISOLATION primer has been applied.

Procedure and application / tools

The coating must be thoroughly mixed before application! Always mix the entire contents of the package! Before application, mix the coating preferably with a rotary mixer at a maximum speed of 150 rpm until the mixture is homogeneous. Mixing may take several minutes.

When the bucket is opened, a crust is formed on the surface of the containing microspheres, which must be mixed with the dispersion at the bottom of the bucket.

The coating is preferably applied with a professional spraying device (airless type with a minimum flow rate of 4.3 litres/minute) to achieve a perfect aesthetic appearance. In spraying equipment it is necessary to remove all filters before application! The pressure at the spray gun nozzle during application must not exceed 200 bar.

The coating can be applied with a brush or roller. A flocking roller or a decorative roller made of coarse foam is ideal. When applying with a brush, it is not recommended to go back for minor imperfections. Partial overpainting of already painted layers will cause the coating to be inconsistent with significant aesthetic flaws. It is recommended to apply the coating generally in two cross layers. Only apply coating in complete areas.

The application of the coating itself is not difficult in principle if the procedure is followed. Dip the roller in the coating and apply to the surface in short strokes. Soak the roller, make a short up and down stroke (approx. 50 cm per stroke, depending on how wet the roller is) and then soak the roller in the coating again. Apply the coating in one layer to the entire area. Then allow to dry for at least 3 hours before applying the second layer. Drying of the layer is important to achieve the desired reflective and insulating properties. Failure to follow this procedure will result in staining and uneven application to the surface being painted. In the case of a prolonged application of the coating, always re-mix the entire coating at intervals of 40 minutes to ensure uniform homogenisation of the coating and to combine all the components contained in the coating.

The material consumption is influenced by the surface texture and the method of application. Apply the coating as required in individual layers and always in accordance with the application instructions. During prolonged application, the coating must be mixed every 40 minutes with a mixing device (drill, stirrer or other). In case of higher ambient temperatures (e.g. direct sunlight), mix the coating more frequently. It is not advisable to work with the coating in humid environments.

The coating can be tinted to the desired shade with suitable pigments, e.g. tinting paste for waterborne pigments. Do not add more than 3% by weight of the entire package of tinting paste, i.e. 540 ml per 18 litres of product. The resulting colour shade can be significantly affected by the condition of the surface, temperature and humidity conditions. Apply the pigment directly into the coating and again mix the entire coating mixture evenly and properly.

After approximately 3 hours, once the surface is dry to the touch, continue with another layer of coating. Avoid applying excessive amounts of coating. Applying excessive amounts of coating will cause run-off or other optical defects.

After approximately 24 hours after application, the final hardening of the coating occurs. After this time, the functionality of the coating is already noticeable. When touched, warmth is felt and a sensible increase in room temperature occurs. The temperature in the room is evenly distributed over the wall, thus preventing condensation of water vapour and the formation of mould. The coating is mechanically resistant. In the event of any damage, the area in question can only be repainted according to the recommended procedure above.

Important notices/restrictions

Failure to follow the coating application procedure may result in insufficient polymerization of the coating and thus affect the properties and functional characteristics of the coating.

Do not apply the coating if

- relative humidity > 80%.
- the surface moisture content is > 4% by weight (concrete: > 2.5%)
- the substrate (surface) and ambient temperature is < +17 °C
- the ambient temperature is > +35 °C
- the surface is exposed to direct sunlight and the ambient temperature is > + 35 °C

After opening the original packaging, we recommend to consume the contents as soon as possible, keep unused coating in a sealed container with as little air above the surface as possible. The applied coating must not be exposed to direct steam, water or other liquids for long periods of time.

Cover areas where coating will not be applied with material to protect against contamination of unpainted surfaces: masking film, non-woven fabrics, tape, etc.

Application conditions

- Surface temperature: +17 °C min. +35 °C max.
- Ambient temperature: +17 °C min. +35 °C max.
- Relative humidity: < 80 %

Drying conditions

The coating does not require any special measures during drying (curing). Drying time depends on air temperature, humidity and surface temperature.

Drying time

Drying time depends on the surface temperature and humidity. The drying (curing) time is a maximum of 24 hours. Apply the next layer only after the previous layer has completely dried. The ambient temperature during drying must be at least +17 °C, ideally +23 °C.

Cleaning tools

With water - as soon as possible after use.

Storage / transport / shelf life

This product retains its useful properties for at least 24 months from the date of manufacture when stored in the prescribed manner in the sealed, intact original packaging. Store at a temperature of +5 °C to +35 °C, humidity up to 80 %. The temperature during transport of the material should not fall below +5 °C and rise above +35 °C. Protect the product from direct sunlight, frost and high temperatures during transport and storage.

Notice

The products can be applied when the surface temperature is above +17 °C and the air temperature is between +23 °C and +30 °C. Avoid application if adverse weather conditions are expected during the curing period (wind, increased dustiness, rain, frost).

Read the Technical and Material Data Sheet, Safety Data Sheet and Application Manual before use.

Note

The information contained in the Technical Data Sheet corresponds to our current knowledge of the manufacturer. Products are of the highest quality and uniform within manufacturing tolerances. The values and data given in this Technical Data Sheet are based on the results of laboratory tests and manufacturer's testing. The information given, especially the advice for the processing and use of the coating, is based on experience with practical applications under standard conditions and proper storage and use.

These values may vary with practical application. Due to variations in processing conditions and other external influences, and the varying nature and treatment of surfaces, a procedure based on the information given, or other written or oral recommendations, may not always guarantee a satisfactory working result. All recommendations made by the manufacturer or distributor of the coating are general. The applicator must verify that the coatings are suitable for the intended purpose of application. The latest edition of the application instructions and product data sheet should always be followed. These, together with other information, are available on request from the manufacturer. Purchasers and users are encouraged to perform a self-test on a sample of the area to be coated prior to application.

The manufacturer shall not be liable for defects resulting from failure to follow the instructions for use given in the Technical and Material Data Sheet, Safety Data Sheet and Application Manual.

Precautions for handling the products

The coating does not contain substances harmful to health, is not labelled or classified as hazardous to health.

Safety precautions

Use protective equipment such as goggles, gloves, protective clothing, etc. to protect eyes and skin when working. Protect the respiratory tract with a suitable respirator in confined spaces and during spray application. Provide ventilation in case of application in closed rooms. More detailed information on hygiene, occupational safety and environmental protection is given in the safety data sheet.

Wash splashed skin with soap and water. Rinse mouth with water if swallowed. If eyes are affected, flush with a stream of water. Exit to fresh air if inhaled.

The material is non-flammable. In the event of a fire in structures, equipment or buildings to which the coating has been applied, we recommend the use of water, foam, dry chemical extinguishing agents or carbon dioxide to extinguish the fire. In the event of a coating leak or spill, use any absorbent material such as sand, etc.

Disposal of packaging/product

The material is not classified as an environmentally hazardous substance (Act No. 185 2001 Coll. on Waste). Dispose of unused material or packaging in accordance with applicable regulations. Clean packaging: category 'O' 15 01 02 - Plastic packaging; Product residues: category 'O' 08 02 99. Keep out of reach of children. Packaging is fully recyclable.

Date of last revision

1.2.2023

Version

For professional use only

Producer



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