



INSULATION TECHNOLOGY GROUP

THE SCIENCE AND TECHNOLOGY IN THERMAL INSULATION
AND SOUND DAMPING SYSTEMS



• Data Sheet

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SHIELD COAT 250

Thermal insulation - Water resistant up to 250 degrees

TECHNICAL DATA

Appearance:	Opaque – foamy
Color:	White – the color can be modify or over painted
Binder:	modified acrylic resins water-based
Specific weight:	0.680 kg / l ASTM D 1475
Brightness ISO 2813:	10 Gloss + -5
Resistance to elasticity:	excellent torsion > 20 %
Hardness:	very good
Resistance to the grid:	ISO 24091 excellent
Resistance to chloride-	excellent
Resistance diesel, petrol:	good
Viscosity:	thixotropic product
Category:	A/C coatings for iron and exterior walls of mineral substrate Limit U.E. for this product cat. A / a 40 g / l (2010)
V.O.C:	zero
Dilution	Product ready for use – in case add water about 3%
Heat resistance:	excellent to – 51°C up to 250°C with peaks up to 300°C
Resistance to salt spray:	excellent over 700 hours with PRIMER ST 361 EPOX V 86 – solvent base excellent over 400 hours with PRIMER ST 365 Selvafond – water base

Insulation properties:

Thermal conductivity:	0,030 W/mK
Film thickness:	minimum 4/5 mm thickness: heat reduction: 50/60% Optimum 6/8 mm thickness: heat reduction 70/80%
Consumption per liter	0,6 – 0,7 liters / square meter mm of thickness
Method of application:	Spray gun recommended - Nozzle diameters 3.5 to 5.00, the product can clog the nozzles / brush / roller
Application temperature:	to be applied at temperatures > 10 degrees, HUMIDITY FEARS

PREPARATION OF SUPPORT

STEEL AND IRON:

Blasting to near white metal (SSPC-SP10) (SVENSK STANDARD SIS Sa 2 ½) with profile conforming to ISO 8503

WALL AND WOOD SURFACES:

Make sure that the support has matured for at least 30 days, remove any dust and dirt.

GALVANIZED STEEL:

Apply two coats of anti-corrosive insulating primer.

For applications to other surfaces or any other application questions, please contact our technical department.

APPLICATIONS PROCEDURE:

- **First step: mix the products inside the tank with a mixer connected to a drill till you obtain a smooth and foamy consistence. This procedure allow to activate the elements in order to obtain the best result**
- **1st layer:** one layer of 0,5 mm of thickness, by spray, brush, roll as primer – in order to allow an appropriate grip
- Wait the products to be dry – circa 30 minutes according with atmospheric conditions.
- **2nd e 3rd layer** (in case 4th layer) for high thickness – in order to reach 4 – 8 mm, according with the requested temperature to be reached. We suggest layers of 2 - 3 mm. The product does not leak, but in case of high thickness (> of 3 mm) it is possible to generate micro-cracks during the dry procedure.
- Dry time for single layer of thickness: 1-3 hour per single layer, according with atmospheric conditions.
- **4th layer** for the end finishing: apply an extra layer of product with enriched extra water (10 – 20 % of water), with a thickness of 0,5 mm for a better final definition of the outer aspect and to face with occasional cracks, due to the high thickness and the relevant dry of the layers
- **Dry time:** 24 – 72, hours according with different atmospheric conditions. For the highest performance of the insulations, it is important to wait the complete dry.
- The product is supply in the version “ready for use”, but it needs to be mixed for a couple of minutes, in order to allow the complete amalgamation of the different products contained in the product, toward a mixer connected to a driller.
- In case of dilution, use only water.
- **ATTENTION** we underline that a non-correct respect of the procedure of application of the product can compromise the performance and the insulations. For this reason we invite you to contact us for any doubts or questions.

APPLICATION PROCEDURES FOR PIPES OF SMALL DIAMETER:

For the insulation of pipes with small diameter (up to 3 ") fitted on the plant, we stress that it is difficult to apply the product with spray system, for the risk of daubing the surrounding areas. It would be better, in this case, insulate the tube before the assembly.

The best application is with a brush, but in order to obtain an optimal visual outcome, in order to comply with the circumference of the tube and keep constant thicknesses, please use the following system with application to soft brush:

1. apply a first coat with a thickness of 2-3 mm
2. apply a spiral wrap with cotton gauze joint
3. apply a second coat, on the bandage, with 2-3 mm thickness
4. wait for the product to dry (approximately 3-4 hours)
5. where appropriate, carry out a further process of bandage (points 2 and 3), to obtain greater thickness (6-8 mm) for improved heat removal.
6. final hand made with slightly diluted product as a final finish to cover any streaks or micro-cracks.

SHIELD COAT

The insulation stays steady till 250°C.

After 250°C odors or fumes, can be present.

Apply with:

Roller - Brush:

Dilute the product with 5-10% of water. Wait 1 – 3 hours before applying further layers.

Spray:

Dilute the product with 5-10% of water

The spraying should be done using specific gun designed and approved.

We recommend a nozzle of 4 mm with air pressure of 3 Bar.

INFORMATION:

Store in cool and room temperature, dry and frost free.

Clean tools after use with water.

Do not apply with temperatures on the support below 10 ° C or above 40 ° C.

Do not apply the product in presence of moisture, the product may not dry out

Do not apply in direct sunlight.

Use the product according to current standards of hygiene and safety.

Do not release to the environment or container.

The herewith data refers to the time of quality control and related to normalized environmental conditions. The information on this sheet, as they cannot take into account the specific conditions of each application, are indicative.