

TECHNICAL DATA SHEET
HEAT REFLECTIVE COMPOUND -50°C +250°C
INDUSTRIAL

Scope of application:

HELIO INDUSTRY - GRAY -50°C +250°C is a product from the HELIO - REFLEKSJA product group, which comprises compounds reflecting thermal energy generated by heating and cooling devices. In the industry sector, it is possible to insulate heat-emitting and transmission devices by applying the heat reflective compound with a thickness of as little as 2 mm (the thickness of the coat is dependent on the application temperature).

The ease of application allows for the insulation of hard-to-reach places and the extensive temperature range of -50°C +250°C gives the product multiple industrial applications in accordance with OHS guidelines. The heat reflective compound can be used in the heating, power, cooling, food and transport industries.

A layer of the compound with a thickness of 1-2 mm allows savings in energy consumption of as much as 40%.

Used for thermal insulation of concrete, brick, stone, metal and wooden surfaces of various shapes, both outdoors and indoors.

Protects from frost penetration.

The compound prevents the condensation of water vapour, which inhibits the development of mould and bacterial spores.

Used for thermal insulation of pipelines, valves, etc.

Acoustic insulation – reduces the noise level.

Resistant to weather conditions and UV stable.

Reflects heat radiation and infrared radiation above 80%.

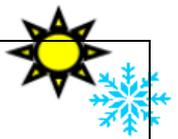
Temperature resistance: between -50°C and 250°C.

Product characteristics:

Properties	Technical parameters
Colour (coat)	Gray
Type	Heat reflective compound
Application	Industrial, both indoors and outdoors
Temperature range	-50°C +250°C
Level of reflection	80%
Savings in energy consumption	30%
Dry matter content	80%
Resistance to wet scrubbing	Class 1 (PN-EN 13300:2002)
Paint density 20°C	0.6 kg/litre
Coat thickness	1-2 mm
Coverage at 1-2 mm	0.5 - 1 m ² – 1L
Weight	0.6 kg – 1 L
Application temperature	Maximum 5-40°C Optimal 15-30°C
Relative humidity during application	40%

HELIO – HEAT REFLECTIVE COMPOUND

HELIO INDUSTRY - GRAY



Method of application

Surface preparation:

- **Walls – Concrete, stone and brick substrates**

Remove any cracks, dust, and residue of old paint coats from the surface, fill in any gaps and prime the substrate using acrylic primer. When the surface is dry, apply the heat reflective coat with a roller, brush or low-pressure paint sprayer (Graco or other).

- **Metal and non-ferrous metal substrates/stainless steel**

The compound can be applied directly onto clean and degreased substrates.

Before applying the compound, make sure that the surface is clean and free of dirt.

The compound should be applied immediately after cleaning and preparing the substrate.

- **Plastic substrates**

For smooth (low-adhesive) surfaces, primer (Putz-Grunt) can be used to increase adhesion.

Painting:

Before painting, mix the compound slowly and thoroughly and paint the walls several times to obtain the final thickness of the coating of min. 1 - 2 mm. The first coat should have a thickness of 250 µm. This coat is to act as a binding layer preventing the formation of runs on vertical surfaces. The binder coat must be dry before the next layer is applied.

Standard coat thicknesses should not exceed 500-550 µm of the wet later. When the first coat is dry, i.e. after 2-3 hours, you can apply another layer. The drying of the paint coat depends on the application temperature – the recommended application temperature is 15-30°C. This temperature range is conducive to achieving an excellent quality of the paint coat. The primary colour is white, which can then be tinted with tinting pastes to any light hues.

Technical parameters of the equipment used to apply the HEAT REFLECTIVE COMPOUND:

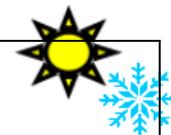
Sprayer – a spray gun with a container connected to a compressor (2 bar) (Preparation of the job mix with the appropriate viscosity) (MAX 5% WATER)

- **Airless spraying**

Recommended pump turndown ratio	33:1 or higher
Capacity, min.	5.7 litre/min.
Nozzles:	
For hard-to-reach places	0.017” (0.43 mm)
Flat surfaces	0.019- 0.023”
	0.48 - 0.58 mm
Pressure	from 2 to 4 bar

- **Trowel (without diluting)**

Roller (Preparation of the job mix with the appropriate viscosity)
(MAX 5% WATER)



HELIO – HEAT REFLECTIVE COMPOUND HELIO INDUSTRY - GRAY

Application temperature:

Paint can be applied in the temperature range of 5-45°C. However, the recommended application temperature range is 15-30°C, with relative humidity of 40%, as these parameters contribute to achieving excellent parameters of the heat reflective coat. Exceeding the maximum recommended temperature of the surface being painted results in accelerated evaporation of water and creation of microcracks which reduce the ultimate effectiveness of the product.

Cleaning of tools:

Wash the sprayer with water in accordance with the manufacturer’s recommendations.

Protective measures:

During painting, observe the general OHS principles and prevent the presence of children inside the rooms which are being painted. Use a face mask (compliant with EN 166).

Wear protective clothing.

Product storage:

Store heat reflective paint at a temperature between +5 and +35°C.

Cover the unused compound with plastic film and close the container using the original lid.

The product’s shelf life is 24 months.

IMPORTANT INSTRUCTIONS

Do not allow paint to freeze. The product is unsuitable for use if it was subjected to minus temperatures.

Packaging:

20L



**Freezing effect reduction
from 40%**



**Level of reflection 80%
Savings in energy consumption 30%**



Easy to apply



**Very high resistance to external
factors**



Prevention of condensation



Temperature range -50°C +250°C



**Noise insulation performance
1 m – 2 dB**



Environmental protection

HEAT REFLECTIVE PRODUCTS - HELIO

HELIO - INDUSTRY – GRAY -50°C + 250°C

HELIO - EVERYWHERE -50°C + 150°C

HELIO - HOUSE -10°C + 60°C

HELIO - ROOF

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