PRELAQ®
COLORFUL BUILDING

PRELAQ ENERGY

Prepainted sheet steel
with superior thermal benefits

SSAB

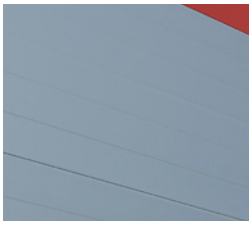
Reduce energy costs, prolong building life

When it comes to prepainted sheet steel material for walls, ceilings and roofs, you want a durable material that stands the test of time and reduces heating and cooling costs. Prelaq Energy is a prepainted sheet steel material that does just this – both inside and outside. Developed to combine thermal benefits with superior strength, Prelaq Energy offers better comfort and environmental efficiency than traditional pre-painted sheet steel, plus many other advantages.

Prelaq Energy is the result of innovative product development inspired by nature's own energy saving principals. Rigorous scientific testing in experimental houses, where temperatures and energy consumption are constantly measured, shows that Prelaq Energy offers major benefits.

PRELAQ ENERGY

- Reduced cost of energy for heating
- Reduced cost of energy for cooling
- Better indoor climate all-year-round
- Increased building life
- Reduced thermal expansion of building elements
- Sustainable development and reduced CO_2 emissions



Functionality – inside and outside

Prelaq Energy is available in both an interior and exterior version, each with a thermal coating specifically designed for maximal energy savings.

EXTERIOR COATING

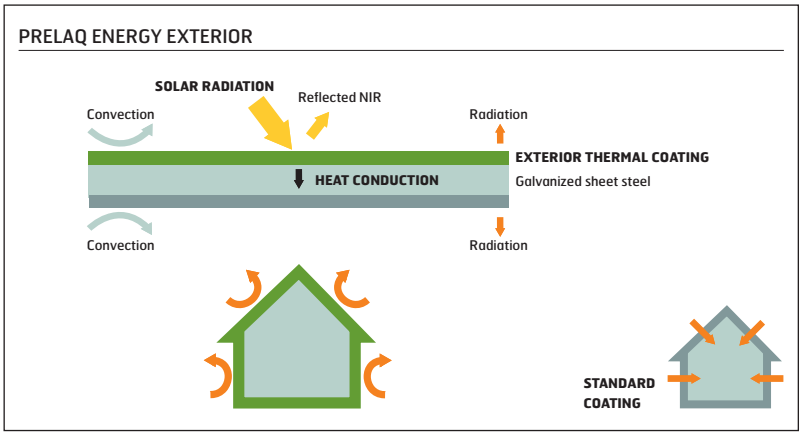
Developed for external walls and roofing, *Prelaq Energy Exterior* reflects incident solar energy and emits the undesired energy that is nevertheless absorbed by the building.

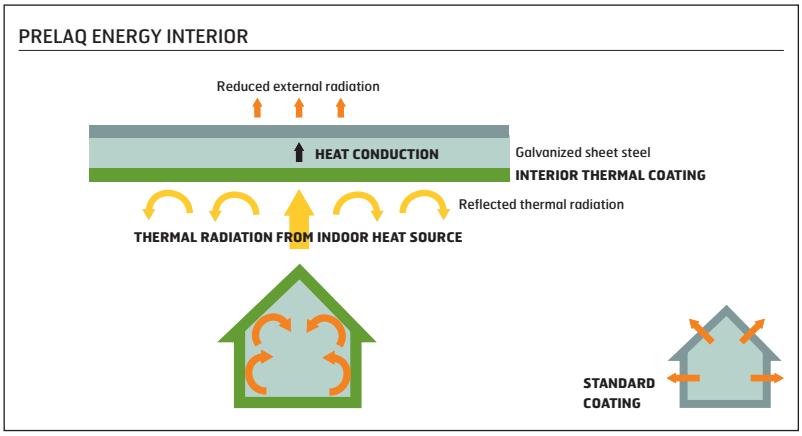
If your goal is to reduce the need for cooling or ventilation during the summer in office premises, commercial premises, industrial buildings or cold storage buildings, Prelaq Enery Exterior is the optimal choice.

INTERIOR COATING

Developed for interior walls and ceilings, *Prelaq Energy Interior* reflects the energy from various heat sources, such as the occupants, machines or equipment.

If you want to heat a building to a lower air temperature, but keep a comfortable temperature for as long as the building is occupied, Prelaq Energy Interior is the perfect choice. Energy can be saved, while a comfortable temperature is maintained inside the building.





COLORS
The color of Prelaq Energy Exterior is currently available in a limited assortment. Prelaq Energy Interior is available in silver.

Test houses for the measurement of thermal properties.

Thermal properties of Prelaq Energy Exterior

The thermal properties of Prelaq Energy are determined by the amount of solar Near Infra Red (NIR) radiation reflected by the sheet surface. In fact, pigments in the coating emit a large portion of the received thermal IR in order to keep temperatures down.

The table below shows typical thermal data for some of the colors in the exterior range.

Color	Closest RAL Designation	Coating Type	Total Solar Reflectance ASTM E903-96	Exterior Thermal IR Emittance ASTM C1371-98
Black 015	9005	Prelaq Energy Exterior Standard	0.33 0.05	0.88 0.87
Antracite Grey 087	7011	Prelaq Energy Exterior Standard	0.37 0.10	0.88 0.90
Goosewing Grey 461	7038	Prelaq Energy Exterior Standard	0.48 0.31	0.89 0.87
Dark Grey 454	7016	Prelaq Energy Exterior Standard	0.35 –	0.88 –
Juniper Green 859	6007	Prelaq Energy Exterior Standard	0.27 0.07	0.89 0.90

Measurements were taken by an accredited independent test laboratory.

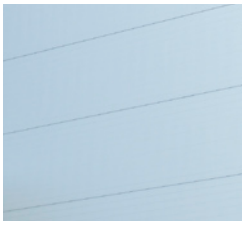
In our experimental houses in Florida, no measurable reduction in thermal properties was observed after two years of outdoor exposure. The total life of the coating improves as the thermal loading is lowered.

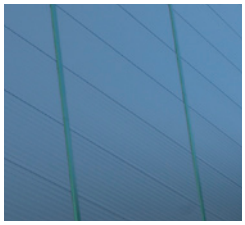
Thermal properties of Prelaq Energy Interior

System	Closest RAL	Thermal reflection	Thermal emittance
Prelaq Energy Interior Silver 046	9006	0,60	0,40
Standard interior coating, Grey 012	7042	0,30	0,70

Measurements taken by the Ångström Laboratory and paint suppliers.

The thermal properties of the interior coating are determined by the ability of the coating to reflect thermal Infra Red (IR) radiation. The table shows typical thermal data for Prelaq Energy Interior.





Paint Coat Prelaq Energy

	Type	Thickness
Prelaq Energy Exterior	Prelaq Nova	40 µm
Prelaq Energy Interior	Epoxi	20 µm
Reverse side coating	Epoxi	10 µm

PROPERTIES

	Test method	Prelaq Energy Exterior	Prelaq Energy Interior
Paint thickness	ISO 2808	40 µm	20 µm
Gloss	EN 10323-2	40	20
Minimum inner bending radius	EN 10323-7	1 T[1] (dark colors) 2 T[1] (light colors)	–
Scratch resistance	EN 10323-12	Min 35 N	Min 9 N
Maximum service temperature		100 °C	–
Corrosivity resistance class	EN 10169–2:2004	RC4	–
UV resistance category	EN 10169–2:2004	R_{uv3}	–
Reaction to fire	EN 13501-1	A2	A1

1) T is the sheet thickness.

ADDITIONAL BENEFITS

Prelaq Energy does not only reduce energy costs, it also offers additional benefits like:

- Improved thermal comfort
- Reduced environmental loading
- Increased life of the exterior coating
- Less variation in temperature
- Less impact on fasteners and sandwich panels.

OTHER PROPERTIES

Substrate material

Prelaq Energy is supplied on hot-dip galvanized sheet steel to EN 10 326, with zinc weight class Z 275.

SSAB is a global leader in value added, high strength steel. SSAB offers products developed in close cooperation with its customers to reach a stronger, lighter and more sustainable world.

SSAB employs 10 000 people in over 45 countries around the world and operates production facilities in Sweden and the US. SSAB is listed on the NASDAQ OMX Nordic Exchange, Stockholm.

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