

Prelaq Polyester - Prepainted Sheet Steel for Buildings

Applications

Prelaq Polyester prepainted sheet steel is suitable for profiled sheet for roofing and wall cladding and for roofing tiles.

Product description

Prelaq Polyester is a coating of thin-film type. The coating has good gloss retention and colour fastness and provides good protection against corrosion. Prelaq Polyester has a smooth surface, but can also be supplied with a textured surface (Matt Polyester). The reverse side of the sheet is painted as standard with a thin coat of grey epoxy-type paint. The reverse side of the sheet is marked with the product name and production date.

Substrate material

Prelaq Polyester can be supplied on hot-dip galvanized steel sheet to EN 10326, with zinc weight class Z 275.

Colours range

The colour range for each paint system is shown on colour charts that are available on request.

Inspection and maintenance

Regular maintenance extends the useful life of the paint coat and thus also the intervals

between repainting, see the brochure entitled "Inspection and maintenance of prepainted steel sheet", E 838, or product leaflet SE 826. Take care to avoid damage to the coating during production and installation. To repair scratches and handling damage, clean and touch up with Abratex Lackstift (touch-up crayon) or equivalent product. Several makes and systems of repainting paints are available on the market.

Intervals between repainting

The aesthetic useful life is affected by many factors. It depends on whether the paint colour is light or dark, whether the material is used on a wall or roof, the roof pitch, the orientation of the surface (e.g. north or south) and the environment. Local environmental impact by precipitation or emissions also affects the aesthetic useful life.

A suitable time for repainting can be determined by regular inspection of the paint coat.

An assessment of when it is appropriate to repaint the sheet should be made by an expert.

The normal time before repainting Prelaq Polyester is considered to be at least 15 years, provided that regular maintenance is done.

Paint coat

| | Type | Thickness |
|------------------------|----------------|-----------|
| Primer on front side | Special primer | 7 µm |
| Top coat on front side | Polyester | 20 µm |
| Reverse side paint | Epoxy based | 10 µm |

Properties

| | Test method | Data |
|-----------------------------|-------------|---|
| Paint thickness | ISO 2808 | 27 µm |
| Gloss | EN 13523-2 | 30 |
| Minimum bending radius | EN 13523-7 | 2 T ¹⁾ (dark colours) 4 T ¹⁾ (light colours) |
| Adhesion | EN 13523-6 | Satisfactory |
| Pencil hardness | EN 13523-4 | HB |
| Maximum service temperature | | 80 °C |

¹⁾ T is the sheet thickness.

Resistance to corrosion

The corrosion resistance of Prelaq Polyester is continuously tested by exposure of test pieces outdoors in corrosive marine and industrial environments.

Prelaq Polyester belongs to corrosion protection category C3 as per ENV 10169-2.

For indoor use, Prelaq Polyester conforms to moisture category CPI5 and environmental category A3 as per EN 10169-3:2003.

The material should not be stored or installed close to damp and corrosive materials or in areas in which the sheet is subjected to strong cleaning

agents or in premises in which animals are kept.

Resistance to UV light

Prelaq Polyester can be used in UV resistance category not exceeding R_{uv} 3 as per ENV 10169-2. This means that Prelaq Polyester can be used north of latitude 37°N (southern Europe) and altitudes of up to 900 m above sea level.

Resistance to chemicals

Prelaq Polyester generally has good resistance to chemicals. However, there are exceptions, e.g. certain organic solvents such as aromatics, ketones and chlorinated hydrocarbons.

Fire classification

Prelaq Polyester conforms to the provisions for class 1 flame-resistant surface coating as per Swedish Standard SS 02 48 23, class 1 surface as per BS 476 Part 7 and Baustoff Klasse B2 as per DIN 4102 Teil 1. The gross calorific value is 1.1 MJ/m² measured in accordance with ISO 1716.

Industrial safety

Special measures should be taken to prevent personnel being exposed to the air pollutants formed during grinding, welding and cutting of the sheet material. For further information, refer to your national industrial safety regulations concerning paints and thermosetting plastics.

Prelaq Polyester has non-slip properties that are equivalent to those of other roofing sheet materials.

Working

If the material is used for producing pressed or bent parts with tight radii, check that no cracking has occurred in the paint coat. See the minimum bending radius in the table of properties. Working should be avoided at sheet temperatures below + 15°C. Cracking of the paint coat may occur at lower temperatures.

Cut edges

Edge corrosion may occur if the sheet is used in corrosive environments and if the cut edges of the sheet are exposed. Protective painting can be applied to avoid edge corrosion.

Product limitations

Use of the material in a distinctly marine atmosphere, such as along a sea coast, should be avoided if the building is located at a distance of less than around 1 km from an open coast along which breaking waves occur. Prelaq Polyester should not be used on roofs that are subjected to mechanical wear, such as intensive use by people walking on the roof, snow clearance or other mechanical wear.

Environment

Environmental work has long been an established part of the operations at SSAB Tunnpåt. Developments are reported in an annual environmental report to the authorities. SSAB Tunnpåt devotes active work to the development of its processes, and develops products that are beneficial from the environmental aspect and from a life cycle perspective. SSAB Tunnpåt has gained environmental certification in accordance with ISO 14001. Steel is 100% recyclable. The environmental properties of Prelaq Polyester are given in a special environmental specification that can be ordered from SSAB Tunnpåt.

Technical service and information

The Organic Coated Products Marketing Department will be pleased to provide additional information on this product and other prepainted products from SSAB Tunnpåt.

Miscellaneous

Damage to the coating should be avoided during production and installation. Scratches and handling damage should receive attention by cleaning and touch-up painting. Storage of the material outdoors should be avoided. If this is unavoidable, the material should be satisfactorily covered and should be stored so that good air circulation will be obtained, in order to avoid moisture. For particulars of tolerances and properties in general, refer to European Standard EN 10169-1.

The information in this document is valid at the date of publication and is intended to serve as general guidance for the use of the product. The latest version of this document is published on our web site. We reserve the right to introduce changes resulting from our continual product development work. The information and data given must not be regarded as binding, unless specially confirmed in writing.

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