PRELAQ®
COLORFUL BUILDING

DATA SHEET: 08-03-17 GB8611-2 Prelaq

Prelaq PVDF
Prepainted sheet steel for buildings

APPLICATIONS
Prelaq PVDF prepainted sheet steel is particularly well suited for profiled sheet for building frontage cladding and roofing, prefabricated wall panels, fittings, etc. for which strict demands are made on colour fastness.

PRODUCT DESCRIPTION
Prelaq PVDF is a thin-film coating consisting of at least 70% polyvinyl chloride. The coating has excellent colour fastness and gloss retention.

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 PVDF 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 PVDF is considered to be at least 20 years, provided that regular maintenance is done.

PAINT COAT

	Type	Thickness
Primer on front side	Special primer	7 - 10 µm
Top coat on front side	PVDF	20 - 23 µm
Reverse side paint	Epoxy based	10 µm

PROPERTIES

	Type	Thickness
Paint thickness Nom	ISO 2808	30 µm
Paint thickness Min	ISO 2808	27 µm
Gloss	EN 13523-2	30
Minimum bending radius	EN 13523-7	0 T[1)] (dark colours)
		1 T[1] (light colours)
Adhesion	EN 13523-6	Satisfactory
Pencil hardness	EN 13523-4	HB
Maximum service temperature		120° C

1) T is the sheet thickness.

SSAB

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RESISTANCE TO CORROSION

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

Prelaq PVDF belongs to corrosion protection category C3 as per ENV 10169-2. For indoor use, Prelaq PVDF 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.

RESISTANS TO UV-LIGHT

Prelaq PVDF can be used in UV resistance category not exceeding $R_{uv}4$ as per ENV 10169-2. This means that Prelaq PVDF can be used without limitations as regards the geographical location.

RESISTANCE TO CHEMICALS

Prelaq PVDF 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 PVDF 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/m^2 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 PVDF 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

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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

The appearance of PVDF in metallic colours is directionally dependent. The marking arrows on the reverse side of the sheet should therefore always point in the same direction as those on sheets laid on the same roof surface. Small variations in appearance may occur. Sheets on a given surface should therefore be taken from the same delivery.

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 PVDF 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 Tunnplåt. Developments are reported in an annual environmental report to the authorities. SSAB Tunnplåt 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 Tunnplåt has gained environmental certification in accordance with ISO 14001.

Steel is 100% recyclable. The environmental properties of Prelaq PVDF are given in a special environmental specification that can be ordered from SSAB Tunnplåt.

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.

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 Tunnplåt.

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