

Prelaq Foodsafe

Prepainted sheet steel for food premises

Prelaq Foodsafe and Prelaq Foodsafe TXT are prepainted sheet steel materials that can be used for internal facing of walls and ceilings in food premises. The paint coats have been developed so that they are easy to clean and do not emit harmful substances that may affect the food. The sheet steel materials are often used as the surface layer in sandwich panels.

Food premises

The various types of food premises include cold stores, storage premises, institutional kitchens, butchering premises and production premises. Special demands are applicable to these premises. The surfaces must be light-coloured, easy to clean and must not emit toxic substances.

The hygienic and cleaning requirements vary between different premises, depending on the operations pursued in them.

Cold stores

Little contamination normally occurs in cold stores and refrigerated rooms, and the environment is generally dry.

Butchering and production premises

Strict demands are made on the cleanliness and freedom from bacteria of surfaces surrounding food premises in which slaughtering, butchering and meat processing operations are pursued. Due to these requirements, the most intensively used premises must be subjected to daily cleaning by means of detergents of varying aggressiveness. The detergents are often highly alkaline. The environment may sometimes also be salty. This must be taken into account when selecting the materials and preparing the detailed design. Departure from our application instructions may lead to a drastically shortened useful life of the prepainted sheet steel material.

Prelaq Foodsafe and Prelaq Foodsafe TXT may be inappropriate for butchering and production premises, since strong detergents may cause blistering of the paint and corrosion of the substrate material. In such cases, an assessment must first be made of the effect that the detergent is likely to have.

Products

The prepainted surfaces of Prelaq Foodsafe and Prelaq Foodsafe TXT are white and are approved to use in premises in which unpacked foods are handled, although not in direct contact with

the food. Prelaq Foodsafe has a smooth surface, whereas Prelaq Foodsafe TXT has a textured surface. The reverse side of the sheet is coated with a 10 µm thick coat of epoxy paint and the surface is suitable for adhesive bonding.

Tested properties related to foods

The SP Swedish National Testing and Research Institute has tested Prelaq Foodsafe and Prelaq Foodsafe TXT for conformance to the "Regulation (EC) No 852/2004 of the European Parliament and of the Council of 29 April 2004 on the hygiene of foodstuffs". The following properties of the materials were tested:

- Water absorption
- Cleanability
- Cleanability for removing bacteria
- Fungal growth
- Toxicity of the coating

Both of the products tested were found to be suitable from the hygienic aspect with regard to all properties tested. The full test report P5 04924 is published at www.prelaq.com.

Products description

Appearance

Product	Surface structure	Colour
Prelaq Foodsafe	Smooth	White (Prelaq 005)
Prelaq Foodsafe TXT	Lightly textured	White (Prelaq 010)

The substrate material for all of our products for food applications is hot-dip galvanized sheet steel with a zinc coating of 275 g/m² in accordance with EN 10326.

Properties of the paint coats

	Test method	Prelaq Foodsafe	Prelaq Foodsafe TXT
Film thickness	ISO 2808	27 µm	27 µm
Gloss	EN 13523-2	30	30
Flexibility	EN 13523-7	3-4 T ¹⁾	3-4 T ¹⁾
Maximum service temperature		80° C	80° C

¹⁾ Sheet thickness

Application instructions

Design of wall joints and connections

Walls that are subjected to cleaning and flushing with water must be designed so that the detergent and water will not penetrate into joints and connections. Fittings of prepainted sheet steel and the sheet in sandwich panels must be designed so that the cut edge of the sheet is not exposed to detergent and water. The bottom edge of the wall material is particularly vulnerable and must be protected against moisture. The joints of fittings must therefore be designed with a flat bend and must be sealed with suitable sealant.

In the case of mountings secured through or to the sheet steel, sealant must be applied around the mounting.

Cleaning of surface coating

The surface coating may be cleaned only with neutral detergents or weak solvents such as white spirit. If strong alkaline detergents are used, the service life of the product will be shortened. If such detergents are used, the surface must be thoroughly rinsed with fresh water immediately after cleaning. If high-pressure washing is used, the pressure must not exceed 80 bar.

Useful life

The useful life of the sheet steel cannot be predicted, since it is dependent on many factors. The time up to the occurrence of damage to the paint coat depends on the aggressiveness of the detergent used and, in conjunction with this, on:

- whether sealants remain in place and are of the right type.
- whether parts are correctly designed, particularly at the skirting.
- whether the surfaces are thoroughly rinsed with water after cleaning.
- whether any scratches that have occurred are immediately touched up with paint.

In addition, the useful life depends on the properties of the detergent and possible harm caused by salt.

Resistance to corrosion

Corrosion may occur at scratches in the coating and at unprotected edges of the sheet. The useful life of the sheet steel material can be substantially increased by regular inspection and maintenance. See separate information sheet for particulars of touching up and maintenance.

For indoor applications, Prelaq Foodsafe and Prelaq Foodsafe TXT conform to Corrosion protection category CP15 and ambience category A4 as per EN 10169-3:2004. The material should not be stored or installed in the vicinity of humid and corrosive materials or in areas in which the sheet steel is subjected to strong detergents or in premises used for livestock.

Fire classification

Prelaq Foodsafe and Prelaq Foodsafe TXT conform to fire resistance rating A1 and per EN 13501:2002.

Industrial safety

If the sheet steel material is ground, welded or cut so that air pollutants are emitted, special measures must be taken to prevent personnel being exposed to the pollutants. For other particulars, refer to your national industrial safety regulations related to paints and thermosetting plastics.

Working

If the material is used for pressed components or bent parts, check that no cracking occurs in the paint coat. See the minimum bending radius in the table of properties. Working should be avoided if the sheet temperature is below 15°C.

Environment

SSAB Tunnplåt has been granted environmental certification in accordance with ISO 14001.

Steel is 100 % recyclable. The environmental properties of Prelaq are presented in a special environmental specification. This can be ordered from SSAB Tunnplåt or can be downloaded from our website.

Technical service and information

Our Prepainted Product Marketing Department and our Development and Customer Service Department will be pleased to supply additional information on this product and other prepainted products from SSAB Tunnplåt.

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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