

## Steel

This warranty is supplementary to Plannja AB's undertakings under the general terms of delivery valid at the time of delivery. The warranty is valid from the date of purchase for deliveries from and including April 2010. The purchaser's legal rights are not affected by this undertaking.

The warranty covers colourfastness and flaking on Plannja construction sheet painted in standard colours, and as a warranty against rust-through; refer to table 1.

According to the terms of this warranty Plannja guarantees that during the warranty period the colour coating will not flake or otherwise fragment, display abnormal colour change or suffer rust-through that causes leaks. The warranty period is counted from the date of delivery to the construction site or 18 months from the date of manufacture, whichever is the sooner.

Abnormal colour change refers to 8 CIELAB units over 5 years, 16 units over 10 years or 20 units over 15 years respectively. Measurements to be carried out on cleaned surfaces. Damage to the surface coating must exceed 5% of the total surface area. The warranty does not cover the protective coating on the back of the sheet or surfaces with touch-up paint.

### Warranty terms

This warranty is valid for Plannja sheet used as roofing or wall cladding on buildings.

The warranty is valid for standard colours in normal environments as described under C1–C4; refer to table 2; refer to table 2.

**Tabell 1**

Coating	Warranty against rust-through		Warranty against colourfastness and flaking	
	C1-C3	C4	C1-C3	C4
Hard Coat 50	30 years	15 years	15 years	15 years
HCG	30 years	15 years	15 years	15 years
Plastisol 500	30 years	15 years	15 years	15 years
HardCoat 25	12 years		12 years	
Matt polyester	10 years		10 years	
Polyester	10 years		5 years	

**Tabell 2**

Corrosivity class	Environmental corrosivity	Environment example	Appropriate coating system
C1	Very low	Heated spaces with dry air and insignificant levels of air pollutants; e.g., offices, schools and hotels.	All
C2	Low	Atmospheres with low levels of air pollutants. Unheated spaces with varying temperatures and humidity. Low frequency of condensation and low levels of air pollutants; e.g., fitness centres, warehouses.	All
C3	Moderate	Atmospheres with a degree of salt or moderate levels of air pollutants. Urban areas, light industry zones and areas with some coastal influence. Spaces with moderate humidity and some air pollutants from production processes such as breweries, dairies and laundries etc.	All
C4	High	Atmospheres with a moderate amount of salt or noticeable levels of air pollutants. Industrial and coastal areas. Spaces with high humidity and high levels of air pollutants from production processes such as chemical industries, indoor pools, shipyards.	Plastisol SCE180, SCE 500, Plannja HardCoat 50 µm
C5-I	Very high (Industrial)	Industrial areas with high humidity and aggressive atmospheres. Spaces with near permanent condensation and high levels of air pollutants.	Not suitable
C5-M	Very high (Maritime)	Coastal and offshore areas with high levels of salt. Spaces with near permanent condensation and high levels of air pollutants.	Not suitable

The warranty does not cover use in especially corrosive or aggressive environments e.g. in air with a high salt content such as saltwater coastal areas, or sheet in contact with water or where corrosive chemicals, corrosive fumes, condensation and ash, cement dust or animal droppings may affect the surface.

### Moreover, the warranty is valid on condition that

- a) inclines on roofs or other surfaces comply with Plannja's product brochures and installation instructions,
- b) metalwork takes place at temperatures specified in Plannja's Technical Data Sheets,
- c) the max temperature for the use of Plastisol is 60°C other than in exceptional cases, and for other coating systems max 80°C,
- d) bending radii comply with Plannja's Technical Data Sheet and that sheet metal is not subjected to heavy rebending,
- e) sheet metal and its coating are not damaged mechanically or chemically,
- f) damage from metalwork that has caused penetration of the surface coating is remedied with touch-up paint by the installer or building owner,
- g) water is able to run freely from all sheet surfaces,
- h) the sheet is not stored or installed in contact with or in the vicinity of damp, corrosive materials or material that may cause galvanic corrosion,
- i) the sheet metal is not exposed to contact with copper or liquid outflows from copper pipes,
- j) suitable fasteners and sealants are used for the applicable corrosivity class,
- k) installation, annual inspection and maintenance have been carried out in a professional manner and in accordance with Plannja's directions and instructions (advice on the selection of basic material, coating system, inspection and maintenance of Plannja products),
- l) accumulations of dirt or other deposits and areas sheltered from rain have been washed in a professional manner,
- m) contact with wet cement, wet timber, soil or other surfaces has been avoided,
- n) the material was installed within six months from the date of invoice, and
- o) that warranty claims are made in writing to Plannja within three months of the date when the damage was discovered or should have been discovered.

### Compensation rules

If a legitimate claim is made under the terms of this warranty, Plannja undertakes, at its discretion, either to meet the costs, in whole or in part depending on the age of the sheet, for repainting the defective sheet or for delivering new sheet free of charge to the purchaser as a replacement. Measures taken must be the most practical and also at reasonable cost. Liability for costs is limited to the original invoiced amount for the sheet delivery concerned. Plannja will not provide compensation for loss of business.



Plannja is not liable under any circumstances for direct or indirect losses arising from such damage as described in this warranty. An equivalent surface coating warranty for replaced or repainted sheet will apply for the remainder of the original warranty period.

The size of the compensation will take into consideration the number of years the building has fulfilled its function and its remaining service life. The following guidelines apply to surface coating flaking and abnormal discolorations. Repainting costs refers to total costs; new sheet costs refers to sheet only.

Time, years	Repainting Compensation %	New sheet Compensation %
0-3	100	100
3-7	60	100
7-10	40	100
10-15*	40	100

\* for 15-year warranty

Damaged sheets are replaced in cases where rust-through has caused leaks.

Warranty claims will be handled provided that the sheet material can be identified by order number and that a copy of the invoice or other purchase document can be presented.

For the Aluzinc warranty period, contact Plannja

## Aluminium

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### Hard Coat 25

The warranty period for aluminium sheet with HardCoat 25 coating is 15 years.

### During the warranty Plannja guarantees

- a) the coating's adhesive properties,
- b) that the product will not flake,
- c) that no blisters or bubbles will form on the product,
- d) that colour variations will not occur, (abnormal colour change refers to 8 CIELAB units over 5 years, 16 units over 10 years or 20 units over 15 years respectively with measurements carried out on cleaned surfaces),
- e) lustre variations will not occur,
- f) that calcium deposits will not occur on condition that the product surface has been exposed equally to weather conditions,
- g) that corrosion will not occur more than 4 millimetres away from a metalworked edge.

Product appraisal in connection with warranty issues will not take place until the surface has been cleaned using conventional methods.

### The warranty is valid on the following conditions:

1. The product must be used in environments with "normal weather conditions". The product may not be exposed to abnormal stresses or used in aggressive or difficult environments. Examples of abnormal stresses include, but are not limited to, environments with high UV radiation, industrial discharges, installation in the immediate vicinity of or within swimming pool facilities or exposure to precipitation or similar that has a destructive effect on the product.
2. The product must be maintained and cleaned regularly and it must be safeguarded against contact with unsuitable materials and pollutants in large quantities. Water must not be allowed to stand on the product's surface.
3. Regular cleaning means that cleaning must be carried out at least twice a year. The product must be inspected in connection

with such cleaning. Surfaces that are not exposed to rainfall, e.g. undersides, must be cleaned more often.

4. In order to be covered by a warranty claim damage must exceed 5% of the product's total surface area at the end user.

5. This warranty does not cover damage that can be shown to arise from faulty manufacturing, and incorrect storage, construction, metalworking or installation, or which can be shown to arise from handling the product in the following manner:

- Storage of unprotected product:
  - Outdoors at temperatures above 50 degrees Celsius
  - Indoors or out in high humidity
  - Indoors or out under continual temperature variations

Metalworking that involves bending or draw pressing should not be carried out at temperatures lower than 15 degrees Celsius. In cases where bending or draw pressing is carried out at temperatures lower than 15 degrees Celsius, the surface must be inspected afterwards to ensure that the metal and the surface coating has not cracked.

Damage arising from mechanical or chemical influence on the product during storage, metalworking or installation.

Damage that has occurred through the use of sealants.

Damage that can be shown to arise from the product's being exposed to rainwater or other liquids that have not been drained or led away, or because it has been exposed to an environment with temperatures continually in excess of 80 degrees Celsius.

Damage that occurs as a result of the use of cleaning agents that contain acetates or polishing agents.

Damage that occurs as a result of metalwork carried out on the product, e.g. roll forming, more than 9 months from product delivery from Plannja.

6. Before a warranty claim can be considered it must be shown to concern a Plannja product.
7. The warranty period commences at the time of delivery from Plannja.
8. Warranty claims must submitted be in writing to Plannja. Warranty claims must be submitted without delay once the damage has been discovered. The product supplier must be informed of warranty claims.

### Compensation rules

If a legitimate claim is made under the terms of this warranty, Plannja undertakes, at its discretion, either to meet the costs, in whole or in part depending on the age of the sheet, for repainting the defective sheet or for delivering new sheet free of charge to the purchaser as a replacement. Measures taken must be the most practical and also at reasonable cost. Liability for costs is limited to the original invoiced amount for the sheet delivery concerned. Plannja will not provide compensation for loss of business.

Plannja is not liable under any circumstances for direct or indirect losses arising from such damage as described in this warranty. An equivalent surface coating warranty for replaced or repainted sheet will apply for the remainder of the original warranty period.

The size of the compensation will take into consideration the number of years the building has fulfilled its function and its remaining service life. The following guidelines apply to surface coating flaking and abnormal discolorations. Repainting costs refer total costs; new sheet costs refer to sheet only.

Time, years	Repainting Compensation %	New sheet Compensation %
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10-15*	40	100

\* for 15-year warranty

Damaged sheets are replaced in cases where rust-through has caused leaks.

Warranty claims will be handled provided that the sheet material can be identified by order number and that a copy of the invoice or other purchase document can be presented.