

# WARRANTY FOR ALUMINIUM

2024-09-01

## SCOPE

This warranty covers corrosion<sup>1</sup> (technical) and abnormal colour change and peeling of the paint (aesthetical) in accordance with below terms and conditions on materials specified in table 1. Materials not listed are not covered by the warranty.

During the warranty period, Lindab guarantees that the aluminium will not suffer corrosion<sup>1</sup> which may cause leakages. Lindab also guarantees that the coating will not flake or otherwise fragment or display abnormal colour change during the warranty period. Abnormal colour change is defined as more than 8 deltaE<sup>2</sup> units over 5 years, 16 deltaE units over 10 years and 20 deltaE units during the remaining time of the warranty period according to table 1. Measurements of the colour must be carried out on a cleaned surface and shall be performed by Lindab or by a representative thereof.

Observe that you never shall mix material from different batches on the same side of a roof or wall, especially on Durafrost (PUR matt). Differences in structure can lead to an experience color deviation to the eye.

The warranty period starts from the date of delivery to Lindab's customer ("the Buyer") and is valid in accordance with the table below for each product respectively ("the warranty period").

**Table 1**

Paint system	Use	Warranty for the colour (aesthetical) Corrosivity class*			Warranty for corrosion <sup>1</sup> (technical) Corrosivity class*	
		C1-C3	C4	C5	C1-C3	C4-C5
<b>Durafrost Pro (PUR matt)</b>	Standing seam roof, flashings	30 years	20 years	15 years	40 years	30 years
<b>Natural (Non colour-coated)</b>	Standing seam roof, flashings. Roof- and wall cladding	N/A	N/A	N/A	50 years	40 years
<b>PVDF</b>	Standing seam roof, flashings, façade cassettes	40 years	30 years	20 years	50 years	40 years
<b>Double coated</b>	Roof drainage system	20 years	15 years	10 years	30 years	20 years
<b>HBP</b>	Flashings, roof and wall profiles	20 years	15 years	10 years	30 years	20 years
<b>PE</b>	Flashings, roof-and wall cladding	15 years	10 years		30 years	20 years
<b>Powder coated<sup>3</sup></b>	Wall cladding and flashings	10 years	10 years		30 years	20 years
<b>Powder coated</b>	Rain drainage systems	5 years	5 years		10 years	10 years

\*See table 3 below

<sup>1</sup>Means when the material is no longer intact so that leakage can occur

<sup>2</sup>deltaE according to Cielab

<sup>3</sup>Not valid if the material/product powder coated has been perforated.

## **CONDITIONS**

The warranty is not valid:

- A. If micro cracks have accrued in the paint during forming or mounting of the material. (The color coated aluminium must be processed in minimum 5°C to avoid this).
- B. For the protective coating on the backside of the product or surfaces that have been repainted.
- C. In particular corrosive or aggressive environments (see which environment your product can be mounted in in table 1) where for example corrosive chemicals are present in the air, in fumes or in smoke. Where there is extremely high salinity (off shore) or where condensation, ashes, lime, cement dust or droppings from animals can impact the surface.
- D. If the pitch of a roof or another surface is less than 1:16 (3,6°) and water cannot run off freely from all surfaces.
- E. If the material has been perforated or if powder coating has been made on perforated material.
- F. If seaming oil that has ended up on the surface does not get removed immediately after the mounting is finished.
- G. If protective film has not been removed within 6 months from application date.
- H. If the sheet and its coating have been damaged chemically or mechanically.
- I. If the material is not kept dry during storage or is used or stored in contact with, or in the vicinity of, corrosive materials, for example copper, iron vitriol or cement.
- J. If accumulations of dirt or other deposits and rain sheltered areas have not been inspected and cleaned annually in a professional way. In C5 and C4 environments, the material must be rinsed much more often. Think “every time it rains”, at least 3-4 times a year. Make a judgement based on how much salt and other contaminations that affects the material.
- K. If the material has been exposed to constant moist due to poor installation or poor cleaning.
- L. If damage to the paint layer (aesthetical) is less than five (5) % of the total product surface.
- M. If installation and maintenance have not been carried out in a professional way and according to currently applicable instructions.

- N. If the material has been handled or stored in an improper way for example if the material has not been exposed to free airflow, if the aluminium has been exposed to temperatures above 50°C during the storage period or if the material has been exposed to large variations in temperature (both indoors and outdoors). The product must not be in direct contact with wet cement, wet wood, or soil.

#### **Additional conditions for roof drainage systems**

The warranty is not valid if the pitch of the gutter is less than 2,5 mm/m.

#### **Additional conditions for roof- and wall cladding**

The warranty is not valid if fasteners and sealants unsuitable for the corrosivity class are used. Fasteners made of aluminium or acid proof stainless is recommended.

#### **Additional conditions regarding post-assembly of solar panels.**

The warranty does not apply to the installation of solar panels or other products/systems on roofs and/or facades that are covered with Lindab's products unless the Buyer can demonstrate that the damage is not attributable to, or has been affected or aggravated by, the installation of solar panels or other products/systems.

In the event of a claim, the Buyer must pay for demounting and remounting of post-assembled solar panels.

Lindab recommends that the Buyer or the end customer always contact a designer, or other suitable specialist, before mounting solar panels or other products/systems on roofs covered with Lindab's products to assess the current mounting.

## **COMPLAINT**

Faults in the product may not be invoked unless a complaint is made to Lindab within (6) months from the fault being discovered or should have been discovered and never later than before the warranty period for the product in question expires.

The Buyer must submit a complaint to Lindab in accordance with this warranty. However, the end customer has the right to submit a complaint according to this warranty directly to Lindab if the Buyer has ceased to operate, for example in event of the Buyer's bankruptcy or liquidation, and the end customer can demonstrate that the complaint relates to products from Lindab. The material must always be identifiable with the Purchaser's order number from the order/purchase at Lindab and where the associated invoice copy or by presenting another purchase document from Lindab.

Lindab or the representative Lindab appoints shall have the right to inspect the material assembled on site.

## **COMPENSATION**

In case of an approved claim according to this warranty, Lindab shall, at its own discretion, compensate for the costs, fully or partially dependent on the age of the product, for either repainting of the defective product or delivery of a new product as replacement for defective product. In case of a product being rusted through which may cause leakage, the defective product shall be replaced. The warranty period is not prolonged for replaced or repainted products. It applies for the remainder of the original warranty period.

The liability of Lindab will take into consideration that the building has served its purpose for a number of years and to the remaining life-time. Lindab applies the guidelines below. Repainting below refers to the total costs for repainting and new product refer to the costs for the material of the new product. The amount on the original invoice states 100% according to the table below.

**Table 2**

Time years* <sup>2</sup>	Repainting compensation* <sup>3</sup> %	New product compensation %
0-15	100	100
16-20	80	80
21-30	60	60
31-40	40	40
41-50	20	20

\*<sup>2</sup> Provided that the time is covered by the warranty period according to Table 1.

\*<sup>3</sup> Applies to coated aluminium

With the exception for defects and remedies as stated above in this warranty, Lindab shall in no event be liable for any other defects and the Buyer shall not be entitled to make any other claims. This applies to each cost or loss that any defect may cause including but not limited to cost for work associated with replacement of the material, as well as loss of production, loss of profit and other direct or indirect costs.

**Table 3 Corrosivity classes according to ISO 12944-2:2017 with environmental examples**

Corrosivity category	Corrosivity	Examples of typical environments (informative only)	
		Exterior	Interior
C1	Very low	-	Heated buildings with clean atmosphere, e.g. offices, shops, schools, hotels
C2	Low	Atmospheres with low level of pollution: mostly rural areas	Unheated buildings where condensation can occur, e.g. depots, sports halls
C3	Medium	Urban and industrial atmospheres, moderate sulfur dioxide pollution; coastal areas with low salinity	Production rooms with high humidity and some air pollution, e.g. food-processing plants, laundries, breweries, dairies
C4	High	Industrial areas and coastal areas with moderate salinity	Chemical plants, swimming pools, coastal ship and boatyards

C5	Very high	Industrial areas with high humidity and aggressive atmosphere and coastal areas with high salinity	Buildings or areas with almost permanent condensation and with high pollution
CX	Extreme	Offshore areas with high salinity and industrial areas with extreme humidity and aggressive atmosphere and subtropical and tropical atmospheres.	Industrial areas with extreme humidity and aggressive atmosphere.