

Liège-Dudelange Steel Industry provides this guarantee to

Dala-Profil AB

# Aluzinc®

## 25 year guarantee for Roofing & Cladding

hereafter referred to as the "Client"

relating to the quality of its Aluzinc<sup>®</sup> AZ185-type coated sheets. Subject to the conditions of this document, this guarantee covers the non-perforation and non-rupture due to corrosion of Aluzinc® steel sheet coated with 185 g/m<sup>2</sup> on both sides, used on the European continent for building purposes both indoors and outdoors, for a period of 25 years, from the date of shipping by the plant of Dudelange.

Aluzinc® - 2019-02-04

The terms and conditions of this Guarantee will enter into force as follows: i) the Client shall return this document duly dated, initialled and signed by the authorised person(s) within thirty (30) days of the date of its receipt; or ii) this document shall be deemed to have been tacitly accepted in full by the Client upon expiry of the period of thirty (30) days from the date of its receipt. Liège-Dudelange Steel Industry may cancel the Guarantee if it does not receive payment for coils within three (3) months of delivery.



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Tunavägen 279 S-781 73 Borlänge | Sweden This guarantee is based on the experience gained by Liège-Dudelange Steel Industry through its plant of Dudelange since it started producing Aluzinc® sheets in 1982.

Liège-Dudelange Steel Industry subjects its production to accelerated corrosion tests, the results of which act as a guide to continuously improve the quality of its products.

Since start of production, Liège-Dudelange Steel Industry is taking samples and places them in outdoor exposure sites. These samples are checked on a regular basis.

Liège-Dudelange Steel Industry regularly inspects several buildings constructed using Aluzinc<sup>®</sup> roofs in various climatic conditions.

Liège-Dudelange Steel Industry runs quality assurance systems in line with the requirements of standard ISO 9001.

### Extent of the guarantee

1. Liège-Dudelange Steel Industry's liability in pursuance of this guarantee shall be exclusively limited, at the choice of Liège-Dudelange Steel Industry, either to the cost of repairing the faulty parts of the sheets or to supplying free of charge to the Client's facilities a sufficient quantity of sheets allowing the Client to manufacture components to replace those deemed faulty (profiled trays, panels etc).

The replacement product must be Aluzinc® coated steel of the same type and with the same specifications as in the original delivery.

2. Under no circumstances shall Liège-Dudelange Steel Industry be liable for labour costs or other costs incurred due to the faulty sheets, or for repairing direct or indirect damage caused by the faulty sheets.

3. All guarantee claims shall be sent in writing as soon as possible after the damage occurs to Liège-Dudelange Steel Industry, which shall be allowed to inspect the items deemed to be faulty. The Client shall detail in its claim the precise identification of the materials deemed to be non-compliant, including the order number, the invoice number, the coil number, the shipping date and the installation date.

4. The Client shall do everything possible to facilitate the inspection of the materials by Liège-Dudelange Steel Industry and to limit building reinstatement costs. 5. This guarantee is granted to the Client of Liège-Dudelange Steel Industry and to the Client alone. It may only be transferred in the event of a change of control of the Client's company, and within 15 days of the change occurring. Only in this case may the remainder of the guarantee be transferred to the Client's successor. The Client may not provide its own customers with guarantees relating to the product sold by Liège-Dudelange Steel Industry and which would exceed the terms of this guarantee.

6. The guarantee covers all products shipped from the date of signing of this guarantee certificate. Liège-Dudelange Steel Industry reserves the right to modify the terms of the guarantee at any time, with the exception of sheets already delivered or orders already placed.

7. It is agreed that the guarantee shall not apply in the event of damage caused during transportation.

8. In the case of an international sale, Belgian law shall be the only law applicable to the present guarantee and to any disputes that may arise between Liège-Dudelange Steel Industry and the Client. The courts of Brussels shall have sole and exclusive jurisdiction in the event of any disputes arising in connection with this guarantee. Liège-Dudelange Steel Industry reserves the right, however, to bring any dispute involving the Client before the courts of the Client's jurisdiction of incorporation.

9. Only the English version of this text shall be deemed authentic.

#### Application conditions

The guarantee applies to all buildings on the European continent:

1. Situated in locations with a normal atmospheric corrosivity category (C1 ... C4 as per EN ISO 12944-2); in other words, excluding highly polluted areas or areas less than 2 km from the seafront and/or subjected to permanent spraying with fresh water or salt water (corrosivity category C5-I and C5-M as per EN-ISO 12944-2).

2. Exposed to moderate corrosive emissions, in other words excluding those subject to the fallout of corrosive chemical products of any kind, smoke or rainwater containing carbon, deposits or particles of heavy metals such as iron or copper, alkaline products such as ash, cement dust or animal excrement. 3. When used indoors, the guarantee shall apply provided no emissions or condensates of any kind are present inside the building. Buildings sheltering animals are not covered by this guarantee.

4. This guarantee applies only to applications where the Aluzinc<sup>®</sup> surface is left as bare metal, as it is supplied by Dudelange plant. Any surface treatment, additional coating or painting results in the loss of this guarantee.

#### Construction rules

To ensure the guarantee applies, the following rules must be complied with during installation.

1. Internal bending radii must be at least equal to the values in the table below.

2. For use as roofing, this shall be designed so that there is no possibility of water or waste – organic or otherwise – stagnating on the Aluzinc<sup>®</sup>, including right on the fasteners and under the profile overlaps.

3. The slope of the roof shall be at least 2 degrees.

4. In cladding applications, all individual elements made of Aluzinc<sup>®</sup> and the whole outer skin of the building shall be profiled in such way that water can drain off freely.

5. Assemblies with other parts (gutters, pipes, ducts for cables, liquids/gases etc) shall be designed and executed in such a way that they do not contribute to keeping fouling or moisture on the Aluzinc<sup>®</sup> surface. This applies particularly for assemblies that form a pocket or trough, and where Aluzinc<sup>®</sup> surfaces are separated from each other, or from surfaces made of other materials, only by a thin gap.

6. For standing seam applications, the use of DX56D AM FCE +AZ HFX +Easyfilm  $^{\otimes}$  is mandatory.

7. Fasteners shall not contain any copper or lead parts in direct contact with the Aluzinc<sup>®</sup> sheet, or any material liable to cause corrosive run-off onto the Aluzinc<sup>®</sup> sheet. They shall be suitably shaped to prevent any local indentation of the Aluzinc<sup>®</sup> sheets, which may prevent rainwater from draining off freely.

8. The design of the structure shall avoid the risk of locally increased corrosion, e.g. caused by water dripping onto the Aluzinc<sup>®</sup> surface.

9. Fasteners made of stainless steel shall be suitably isolated from the Aluzinc<sup>®</sup> surface to avoid increased corrosion linked with the formation of a corrosion cell. One option is to use plastic washers to separate the fasteners from the Aluzinc<sup>®</sup> surface.

10. Forming shall occur without subjecting the  $Aluzinc^{\oplus}$  sheet to high tensile stress or alternating bending stress.

11. Aluzinc<sup>®</sup> sheets that have sustained damage of a mechanical or chemical nature during forming, transportation, storage or assembly shall not be used. Sheets that sustain damage after assembly shall be replaced before construction work comes to an end.

12. All contact with wet insulation materials, impregnated wood and other corrosive products is to be avoided.

13. After fitting, all tools, debris and miscellaneous items must be removed. Pencil or pen marks and any other type of marking must be removed. Aluzinc<sup>®</sup> roofs are to be inspected annually by the Client or its authorised representative. They are to be cleaned regularly and any accidental damage noted is to be repaired (scratches, dents, bulges etc).

Grade	Thickness ≤ 0.75 mm	Thickness > 0.75 mm
DX51D - DX56D S250GD - S390GD	r = 2 x thickness	r = 4 x thickness
S550GD « Full Hard »	r = 5 x thickness	Not applicable