



elZinc® allows great freedom to architects.

Asturiana de Laminados S.A manufactures coils and sheets made of the highest quality Titanium Zinc for the international market under the elZinc® brand name. elZinc® titanium zinc meets all the requirements of both the European standard EN 988 and American standard ASTM B-69 which define the general requirements for titanium zinc strips and sheets for use in the building industry.

The alloying components are high-grade refined zinc of the highest level of purity (Zn >99.995%) according to the European standard EN 1179, and precisely defined amounts of copper and titanium as the alloying elements

elZinc® titanium zinc has been optimised for use in building applications. The rolling process is of particular importance here, which has precisely tuned to the elZinc® alloy, as well as accurate temperature control during manufacture. This means the achievement of consistent quality and of compliance with all properties requirements

elZinc® titanium zinc stands out due to:

- Very good workability irrespective of the rolling direction.
- High resistance to creep (creep strain limit).
- Good cold-working characteristics
- High recrystallization threshold, i.e. no grain growth until 300 °C; this is crucial for soldering.

elZinc® undergoes thorough internal and external quality controls that ensure excellent properties, thus exceeding the requirements established by standard EN 988.

Whether natural or pre-weathered, zinc is a material which is highly valued by architects and professional roofers. It allows great freedom in terms of aesthetics and architecture, and it adapts to each construction style, whether involving classic or modern architecture.

Handling

elZinc® products should be handled with special care when loading and unloading to avoid any damage such as dents or scratches.

In order to correctly solder the material, the surface finish must be removed to reveal the shiny base metal below. To do this, elZinc recommends elZinc Flux, which has been specially developed for this purpose.

Storage

elZinc® should be stored in a dry and ventilated place, preventing condensation and protecting it from moisture.

Correct behavior of the film on removal cannot be guaranteed beyond 12 months after dispatch from elZinc plus the maximum times allowed after installation – 3 months on sunlight areas and 6 months on shaded areas. Adhesive residue can also remain on the surface of the zinc, which is difficult to remove.



Test criteria for elZinc's standard rolled zinc is more demanding than either EN 988 or ASTM B-69 as is shown in the following table:

CRITERIA	EN988	ELZINC	ASTM B-69 Arch. T. 1
CHEMICAL COMPOSITION			
Zinc	Zn 99,995 (Z1 according to EN 1179)	Zn 99,995 (Z1 according to EN 1179)	–
Pb-Fe-Cd-Sn-Mn-Mg	–	–	max. 0,005%
Copper	0,08 – 1,0%	0,08 – 0,2%	0,08 – 0,2%
Titanium	0,06 – 0,2%	0,07 – 0,12%	0,07 – 0,12%
Aluminium	max. 0,015%	max. 0,015%	0,001 – 0,015%
DIMENSIONS AND TOLERANCES FOR STANDARD PRODUCTS			
Thickness of sheets and coils	± 0,03mm	± 0,01mm	± 0,0254mm* ± 0,0508mm**
Width of sheets and coils	+2 / -0mm	+1 / -0mm	± 1,575mm
Length of sheets	+10 / -0mm	+2 / -0mm	± 5mm
Straightness	max. 1,5 mm/m	max. 1,0 mm/m	25,4mm
Flatness	max. 2mm	max. 2mm	–
MECHANICAL AND TECHNOLOGICAL PROPERTIES IN THE DIRECTION OF ROLLING			
Yield strength elasticity 0,2% (Rp 0,2)	min. 100 N/mm ²	min. 110 N/mm ²	–
Tensile strength (Rm)	min. 150 N/mm ²	min. 150 N/mm ²	96-262N/mm ²
Breaking elongation (A50)	min. 35%	min. 40%	10 – 70%
Vickers hardness (HV3)	–	min. 45	–
HR15T hardness	–	–	54 – 74
Bending test	No cracks at the edge of fold	No cracks at the edge of fold	–
Bending back after folding test	–	No cracks	–
Erichsen test	–	min. 7,5 mm	–
Deformation after yield strength test (Rp0, 1)	max. 0,1%	max. 0,1%	–