

MATERIAL DATA SHEET

RHEINZINK-CLASSIC bright-rolled



- NATURAL SURFACE
- NATURAL PATINA FORMATION
- SELF-HEALING OF SCRATCH MARKS
- LOW MAINTENANCE
- 100% RECYCLABILITY

BASIC-INFORMATION

The bright-rolled titanium-zinc alloy has proven itself for over 50 years. Depending on the climatic conditions, the natural, metallically shiny surface develops the typical blue-grey patina over time after assembly. The formation of this natural protective layer is responsible for the high corrosion resistance of zinc. The bright-rolled surface gradually becomes more and more charismatic through the formation of the patina and develops a very individual character.

Specific weight 7.2 g/cm³
Building material class A1 (non-combustible)
Titanium zinc according to DIN EN 988
Meets ASTM B69-21 Architectural Rolled Zinc Type 1

DELIVERY FORM

Standard widths 500 – 1000 mm

Standard thicknesses 0.70 - 0.80 - 1.00 mm

1,20 - 1,50 mm on request

Protective film On request

Coil inner diameter 508 mm as of 1000 kg

IMPORTANT INSTALLATION INSTRUCTIONS

Bending radius Minimum 1.75 mm

from 1.00 mm on 1.75 x t

Soldering recommendation Soldering flux "ZD-pro" (company

Felder) or architectural zinc

compatible flux

Overlap area 10 to 15 mm

Processing temperature Warming up in temperatures below

10°C

Protective film Remove the film immediately after

after assembly

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Note:

In the event of contamination due to external or environmental influences, please request the RHEINZINK cleaning recommendations. With these recommendations, RHEINZINK cannot guarantee that the appearance will be as good as new.

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ALLOY

99.995% (Z1 according DIN EN 1179) Zinc

0.10 - 0.18%Copper 0.06 - 0.12%**Titanium** Aluminum ≤ 0.015%

CERTIFICATION

Quality management Environmental management **Energy management** Environmental product declaration

Certified according to ISO 9001 Certified according to ISO 14001 Certified according to ISO 50001 Verified according to ISO 14025, TYPE III

and EN 15804

MECHANICAL-TECHNOLOGICAL PROPERTIES

0.2% yield strength (Rp0.2) $\geq 100 \text{ N/mm}^2$ Tensile strength (Rm) $\geq 150 \text{ N/mm}^2$ Breaking elongation (A50) ≥ 35% Vickers hardness (HV3) ≥ 45 ≥ 0.7 Folding tensile test Erichsen cupping ≥ 8.0 mm

PHYSICAL AND CHEMICAL PROPERTIES

420 °C Melting point / range 906 °C Boiling point / range > 300 °C Recrystallization limit 7.2 g/cm^3 Density at 20 °C Elasticity modulus $\geq 80.000 \text{ N/mm}^2$

Expansion coefficient

In the longitudinal direction

In the rolling transverse

direction

 $1.7 \,\mathrm{mm/m} \times 100 \,\mathrm{K}$

 $2.2 \, \text{mm/m} \times 100 \, \text{K}$

Thermal conductivity 110 W/m·K Specific heat capacity 398 J/kg/K

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