

MATERIAL DATA SHEET

**RHEINZINK-prePATINA
ECO ZINC graphite-grey**



- **NATURAL SURFACE**
- **PICKLING PROCESS
CREATES THE LOOK
OF A REAL PATINA EX
WORKS**
- **SELF-HEALING OF
SCRATCH MARKS**
- **100% RECYCLABILITY**

BASIC- INFORMATION

The RHEINZINK-prePATINA ECO ZINC product line is pre-weathered titanium zinc without phosphating, which allows the formation of a natural and durable zinc carbonate layer (patina). The color effect results from the metal alloy itself. A higher copper content creates a darker surface in the unique RHEINZINK pickling process. In this way the „graphite-grey“ color can be produced ex work. During the natural patina formation, there may be a slight greenish color change and the surface may lighten slightly.

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 2

DELIVERY FORM

Standard widths	500 – 1000 mm
Standard thicknesses	0.70 – 0.80 – 1.0 mm 1.2 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

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

Zinc	99.995% (Z1 according DIN EN 1179)
Copper	0.80 – 1.00%
Titanium	0.06 – 0.12%
Aluminium	≤ 0.015%

CERTIFICATION

Quality management	Certified according to ISO 9001
Environmental management	Certified according to ISO 14001
Energy management	Certified according to ISO 50001
Environmental product declaration	Certified according to ISO 14025, TYP III and EN 15804

MECHANICAL-TECHNOLOGICAL PROPERTIES

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

PHYSICAL AND CHEMICAL PROPERTIES

Melting point / range	420 °C
Boiling point / range	906 °C
Recrystallization limit	> 300 °C
Density at 20 °C	7.2 g/ cm ³
Elasticity modulus	≥ 80.000 N/ mm ²
Expansion coefficient	
In the longitudinal direction	2.2 mm/m x 100 K
In the rolling transverse direction	1.7 mm/m x 100 K
Thermal conductivity	110 W/m·K
Specific heat capacity	398 J/ kg/ K
RAL color *	RAL 7043

prePATINA ECO ZINC

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* Colour values are approximate values in the as-delivered condition, deviations in the surface treatment process and due to natural patina formation are possible.