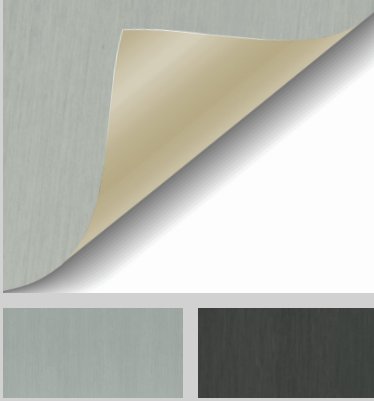


MATERIAL DATA SHEET

Special coating proROOFING
for RHEINZINK-prePATINA



- **BACKSIDE PROTECTION AGAINST ZINC HYDROXIDE**
- **PROTECTION AGAINST NEGATIVE, BUILDING PHYSICAL INFLUENCES THROUGH SPECIAL CLIMATE CONDITIONS**
- **LEAD-FREE, FREE FROM CADMIUM AND CHROME-VI-COMPONENTS**

BASIC-INFORMATION

proROOFING for RHEINZINK prePATINA is a special coating that is applied on the backside after the pre-weathering process in the coil coating line. The organic special coating proROOFING protects the prePATINA surfaces on the backside from zinc hydroxide formation due to temporarily moisture during storage and transport. The special coating is also a reliable protection against negative building physics influences due to special climatic conditions. There is expressly no corrosion protection in the case of failures in the manual application or incorrect choice of detailing during planning and the resulting water penetration into the construction.

Specific weight 7.2 g/cm³

Building material class A2 (non-combustible)

Titanium zinc according to DIN EN 988

Certified according to QUALITY ZINC, TÜV Rheinland

DELIVERY FORM

Maximum width	1 000 mm
Maximum thickness	1.0 mm
Minimum order quantity	5000 kg per thickness and width
Protective film	Standard
Coil inside diameter	508 mm at > 500 kg 400 mm at < 500 kg

IMPORTANT INSTALLATION INSTRUCTIONS

Bending radius	Minimum 1.75 mm
Soldering recommendation	Soldering flux "ZD-pro" (company Felder), Remove the coating abrasively, Overlap area 10 to 15 mm
Processing temperature	Warming up in temperatures below 10°C
Protective film	Remove the film immediately 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 a new look will be created.

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proROOFING

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ALLOY

Zinc	99.995% (Z1 according DIN EN 1179)
Copper	0.10 - 0.18% (prePATINA blue grey) 0.80 - 1.00% (prePATINA graphite grey)
Titanium	0.06– 0.12%
Aluminum	≤ 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	Verified according to ISO 14025, TYPE III and EN 15804

External monitoring 4 times per year by TÜV Rheinland

MECHANICAL-TECHNOLOGICAL PROPERTIES

0.2% proof stress (Rp0.2)	≥ 110 N/ mm ²
Tensile strength (Rm)	≥ 150 N/ mm ²
Breaking elongation (A50)	≥ 40%
Vickers hardness (HV3)	≥ 45
Folding test Bending back after folding test	No cracks on the bending edge No cracks after bend break
Fold tensile force test*	D ≥ 0.7
Erichsen cupping	≥ 8.0mm
Longitudinal curvature	≤ 1.0mm/ m
Flatness	≤ 1.5mm wave height
Permanent elongation in creep (Rp0.1)	≤ 0.1%

*D = (tensile strength of folding sample) / (tensile strength of material)

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	≥ 80000 N/ mm ²
Expansion coefficient	
In the longitudinal direction	22·10 ⁻⁶ K ⁻¹
In the rolling transverse direction	17·10 ⁻⁶ K ⁻¹
Specific heat capacity	398 J/ kg/ K
Thermal conductivity	110 W/ m · K
Electrical conductivity	17 m/Ω · mm ²
Viscosity	Dynamic at 500 °C: 0.0030 mPa·s