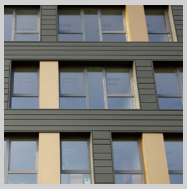
# MATERIAL-DATA SHEET

**RHEINZINK-artCOLOR**



- **COLORED, OPAQUE COATING**
- **SEVEN STANDARD COLOURS**
- **COLORS ON DEMAND FROM 5 TO**
- **DURABLE AND WEATHER RESISTANT**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## BASIC-INFORMATION

RHEINZINK-artCOLOR combines the strengths of zinc with the variety of colored coatings. The strong, opaque colors are applied to the titanium zinc in a coil coating process. Each of the colours represents a highlight in any façade or roof design. At the same time, the organic coating offers resistant protection against various climatic and environmental influences.

Specific weight 7.2 g/cm³
Building material class A2 (non-combustible)
Titanium zinc according to DIN EN 988

## LIEFERFORM

| | | |
|---|---|---|
| Standard colors (RAL colors are approximate) | black-grey | (RAL 7021) |
| | pure-white | (RAL 9016) |
| | pearl-gold | (RAL 1036) |
| | moss-green | (RAL 6028) |
| | nut-brown | (RAL 8011) |
| | blue | (RAL 5007) |
| | tile-red | (RAL 3001) |
| | RAL-Color on demand from 5 to | |
| Maximum width | 1000 mm | |
| Standard thickness | 0.70 mm (more thicknesses from 5 to) | |
| Protective film | Standard | |
| Coil inside diameter | 508 mm at > 500kg | |
| | 400 mm at < 500 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), remove the coating abrasively, overlap area 10 to 15 mm |
| Processing temperature | Warming up in te temperatures below 10°C |

*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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artCOLOR

artCOLOR pure white
artCOLOR pearl gold
artCOLOR moss green
artCOLOR nut brown
artCOLOR blue
artCOLOR tile red
artCOLOR black grey

RHEINZINK

## ALLOY

| | |
|---|---|
| Zinc | 99.995% (Z1 according DIN EN 1179) |
| Copper | 0.10 – 0.18% |
| Titanium | 0.06 – 0.12% |
| Aluminum | ≤ 0.015% |

## ZERTIFIZIERUNG

| | |
|---|---|
| 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 |

## MECHANICAL-TECHNOLOGICAL PROPERTIES

| | |
|---|---|
| .2% proof stress (Rp0.2) | ≥ 110 N/ mm² |
| Tensile strength (Rm) | ≥ 150 N/ mm² |
| Breaking elongation (A50) | ≥ 40% |
| Vickers hardness (HV3) | ≥ 45 |
| Folding test | No cracks on the bending edge |
| Bending back after folding test | No cracks after bend break |
| Fold tensile force test* | D ≥ 0.7 |
| Erichsen cupping | ≥ 8.0 mm |
| Longitudinal curvature | ≤ 1.0 mm/ m |
| Flatness | ≤ 1.5 mm 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/ cm³ |
| Elasticity modulus | ≥ 80.000 N/ mm² |
| 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 · mm² |
| Viscosity | dynamic at 500 °C: 0,0030 mPa·s |

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