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WHAT IS RHEINZINK?

RHEINZINK is the world's leading brand of architectural-zinc for building applications. Generically known as "titanium-zinc", RHEINZINK is a natural-weathering metal that forms a grey patina after repeated exposure to moisture and air. Combining 99% special high-grade zinc with approximately 1% titanium and copper, the RHEINZINK alloy can help provide long-term solutions for roofs, facade cladding and gutters.

This engineered zinc-alloy also helps designers provide a natural grey color complement or contrast to brick, concrete/CMU, slate, stone, or wood while also achieving a long service life.

RHEINZINK is a monolithic metal that is low-maintenance, malleable, and has no color coating. For more than 200 years, zinc has been used by European designers and sheet-metal craftsman to create structures that endure for generations.

Since 1993, RHEINZINK has been used in North America on college and corporate campuses, municipal buildings, libraries, cultural centers, and residential projects. RHEINZINK is recognized world-wide as a low-environmental impact metal of choice that is both beautiful and cost-effective.

RHEINZINK PRODUCT LINES:

RHEINZINK-PATINA - The classic line, consisting of prePATINA bright rolled, prePATINA blue-grey and prePATINA graphite-grey surfaces will patinate as nature intended when exposed to wetting and drying cycles. Over time, the prePATINA bright rolled takes on a blue-grey patina when exposed to atmospheric influences while the preweathered materials prePATINA blue-grey and prePATINA graphite-grey

will continue to age over time in response to microclimatic conditions. These natural patinas may appear lighter when used in locations where the air contains chlorides. When used in environments where sulphur levels are higher, (e.g. industrial pollution), the patina may appear somewhat darker than usual. For more on this, please reference Chapter 1, "Weathering Characteristics".



The **COLOR-LINE** is painted RHEINZINK-titanium zinc for roofing, façade cladding and architectural details. A colored zinc can be used to augment a project or create unlimited levels of design. Currently, RHEINZINK-COLOR is available in five shades: RHEINZINK-blue, RHEINZINK-tile-red, RHEINZINK-nut-brown, RHEINZINK-moss-green and RHEINZINK-pearl-gold. All RHEINZINK-COLOR coils and sheets are delivered with a protective film.



RHEINZINK-INTERIEUR - This innovative new line unleashes new creativity for interior design possibilities. Like the classic patina line, this material is easy to profile and is perfect for cladding curved walls. Imagination is the only limitation. Available in RHEINZINK-INTERIEUR blue-grey and RHEINZINK-INTERIEUR graphite-grey surfaces.



WHAT IS RHEINZINK?



Composition of RHEINZINK

Zinc	99%
Alloy Additives:	
Titanium	0.07 - .12%
Copper	0.1 - .18% (PPBG)
Copper	0.8 - 1.0% (PPGG)

Zinc:

- Special High Grade (SHG): 99.995% pure

Titanium

- Improves the tensile strength and hardness of the material and increases creep resistance
- Increases the re-crystallization temperature by about 68°F (20°C) to about 572°F (300°C).

Copper

- Forms a solid solution with zinc
- Improves malleability
- Is responsible for the natural blue-grey and graphite-grey colors

DIN Standards and Mechanical Properties

RHEINZINK is manufactured to exceed the requirements of Euro-Norm Standard DIN EN 988 (formerly DIN 17770), which prescribes certain minimum material properties for titanium zinc. RHEINZINK is constantly subjected to quality control monitoring according to DIN EN 988, DIN ISO 9001, DIN ISO 14001 requirements, and additionally by an external inspection through an accredited, independent institute (TÜV Rheinland), according to the "Quality Zinc" criteria. RHEINZINK conforms with ASTM B-69-13-Type 1 and Type 2 for Architectural Rolled Zinc. The chart below outlines the mechanical and physical properties of: RHEINZINK-prePATINA, RHEINZINK-PROTECT, RHEINZINK-COLOR and RHEINZINK-INTERIEUR.

Property	Metric	Imperial
Tensile Strength	min. 150 N/mm ²	min. 21.8 lb/in ² x 10 ³
Yield Strength	min. 110 N/mm ²	15.95 lb/in ² x 10 ³
Elasticity Modulus	80,000 N/mm ²	11.6 lb/in ² x 10 ³
Thermal Expansion Coefficient	0.022 mm/m/K	12 in/in° F x 10 ⁻⁶
Melting Point	418° C	784° F
Re-crystallization Temperature	300° C	572° F

Metric (mm)	Imperial (inches)	Gauge (universal)	Weight in Pounds	Weight in Metric
0.7	0.028	24	1.03 lb/sq ft	5.04 kg/m ²
0.8	0.032	22	1.18lb/sq ft	5.76 kg/m ²
1.0	0.039	20	1.48lb/sq ft	7.20 kg/m ²
1.2	0.047	18	1.77lb/sq ft	8.64 kg/m ²
*1.5	0.059	16	2.21lb/sq ft	10.80 kg/m ²

*PrePATINA graphite-grey available by special order

Erosion will thin metal so the thicker the material, the longer it will last. The standard width of coils and sheets is 39.4" (1m) and 19.7" (1/2 meter). Non-standard coil widths may be ordered.