

POWA Group

Technical Data Sheet

POWAKOTE® STRUT



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Powakote® Zinc-Magnesium Coating

Powakote® is a next-generation zinc-magnesium-aluminum alloy coating applied through hot-dip galvanising. It provides advanced corrosion protection and a unique self-healing property at cut edges and scratches.

CONVENTIONAL GALVANISING

Rust appears early at cut edges and scratches.

POWAKOTE® (ZM COATING)

Self-healing oxide layer prevents rust spread.

Powakote® Strut Slotted Heavy

41mm x 21mm

- Length: 6 metres
- Thickness: 2.5mm
- Profile: 41 x 21mm

41mm x 41mm

- Length: 6 metres
- Thickness: 2.5mm
- Profile: 41 x 41mm



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Key Properties



Up to 7× higher corrosion resistance compared to conventional zinc coatings.



Self-healing oxide layer extends protection to cut edges, welds, and scratches.



Superior barrier protection: stable oxide film prevents corrosion creep.



Higher surface hardness reduces abrasion and tool wear.



Excellent formability, weldability, and paint adhesion.

Environmental & Sustainability Benefits

- Significantly reduced zinc runoff into soil and water.
- Lower CO₂ footprint than stainless steel and aluminium alternatives.
- 100% recyclable and REACH compliant (free from harmful substances).

Technical Specifications for Powakote® ZM Coating

Parameter	Powakote® (ZM Coating)
Thickness Range	0.4 – 3.2 mm
Coating Weights	70 – 450 g/m ² (5–25 µm per side)
Steel Grades	Structural, Forming, High-Strength
Surface Treatment	Oil, Chrome-free passivation, Easyfilm®
Standards	EN 10346, DIN 55634, SEW 022

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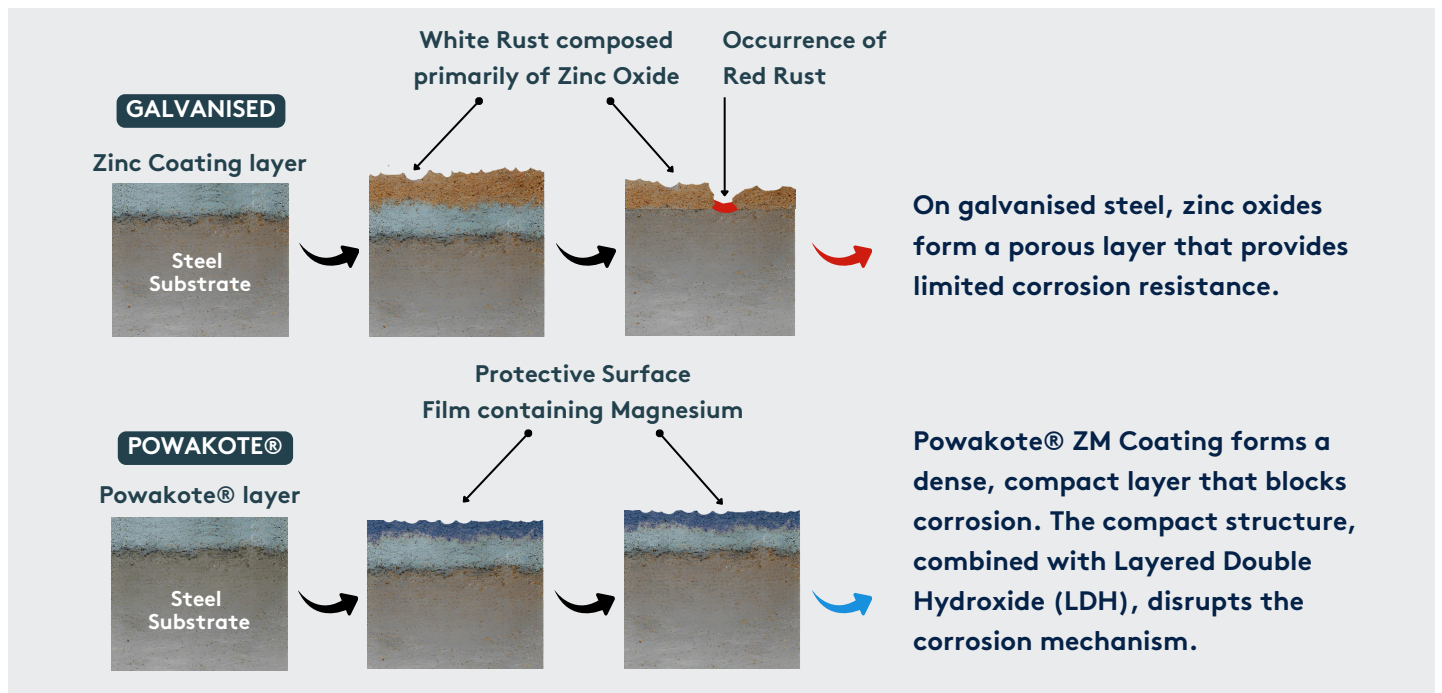


Powakote® ZM Coating Applications

- Solar support structures – durability in soil and outdoor exposure.
- Strut and framing systems – superior corrosion resistance.
- Plumbing tubes and welded products – protection at weld seams.
- Outdoor structures – roofing, crash barriers, silos, guardrails.
- Agricultural applications – grain silos, storage structures.

Performance Testing for Powakote® ZM Coating

Test	Conventional Galvanising	Powakote® (ZM)
Salt Spray (ISO 9227)	Red rust < 72h	Red rust > 500h
Cyclic Corrosion	Moderate resistance	Superior long-term protection
Field Exposure	Rust at cut edges	Self-healing prevents rust spread



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Load Rating & Deflection: 41mm x 21mm

Span (mm)	Max. Allowable Load (kg)
250	333
500	166
750	111
1500	55
3000	28

Load Rating & Deflection: 41mm x 41mm

Span (mm)	Max. Allowable Load (kg)
250	980
500	490
750	327
1500	163
3000	82

Maximum Load Information:

Loads are assumed to be static and applied as a uniformly distributed load (UDL). Published capacities correspond to plain channels analysed under simply supported beam conditions.

