



TECHNICAL MANUAL

Silo Corrosion Protection & Coating Specification

Surface Preparation, Coating System & Inspection

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1. Surface Preparation

All steel surfaces are prepared before coating. Hot-dip galvanized shells receive only touch-up; bare or damaged steel is blast-cleaned.

Grade	Description	Use
Sa 2.5	Near-white blast	Primary structure
Sa 2	Commercial blast	Secondary parts
St 3	Power tool clean	Localised repair

2. Coating System

Recommended system for atmospheric (C3/C4) exposure. DFT = dry film thickness.

Coat	Type	DFT (µm)	Note
Primer	Epoxy zinc-rich	60	Corrosion barrier
Mid coat	Epoxy mica	120	Build & barrier
Finish	Polyurethane	60	UV / colour stable
Total	—	≥ 240	Per project spec

3. Ambient Conditions

- Apply only when surface temperature is $\geq 3\text{ }^{\circ}\text{C}$ above dew point.
- Relative humidity $\leq 85\%$; steel temperature $5\text{--}40\text{ }^{\circ}\text{C}$.
- Do not coat in rain, fog or direct strong sunlight on hot steel.
- Measure dew point with a surface thermometer + hygrometer on site.

4. Application

- 1 Verify surface preparation and profile ($25\text{--}75\text{ }\mu\text{m}$ roughness).
- 2 Mix components per pot-life; strain before use.
- 3 Apply by airless spray; maintain wet-film thickness gauge checks.
- 4 Allow recoat window per product data sheet.
- 5 Cure fully before handling or stacking.

5. Inspection & Repair

- DFT measured at 5 points per 10 m² ($\geq$ specified)
- No blistering, runs or misses
- Adhesion test per ASTM D4541 on sample
- Damaged areas re-blasted and spot-repaired
- Coating report with photos archived

This technical manual is issued for the named customer's installation, commissioning and operation. Manxing engineering reserves the right to revise procedures; always use the latest revision. Contact Manxing service for field support and certified drawings.