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Product: Redline
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RECOMMENDED APPLICATIONS

Redline is suited to pressurised systems requiring internal protection and hydraulic restoration:

- ▶ **Potable water pipelines**
Commonly affected by corrosion, scaling, and tuberculation, leading to reduced flow capacity, discoloured water, and potential contamination risks.
- ▶ **Fire service pipework**
Prone to internal corrosion and build-up that can restrict flow and compromise system performance during emergency operation.
- ▶ **HVAC and cooling systems**
Frequently experience corrosion, sediment build-up, and biofilm formation, reducing system efficiency and increasing maintenance requirements.
- ▶ **Compressed air systems**
Subject to internal corrosion and moisture-related degradation, leading to reduced efficiency and potential contamination of air supply.
- ▶ **Metallic pipe systems**
Typically degrade through corrosion and pitting, resulting in pinhole leaks and progressive wall thinning. Negotiates multiple bends and tees
- ▶ **Pipelines experiencing pinhole or slab leaks**
Often caused by long-term corrosion and material degradation, leading to water loss and damage to surrounding structures.

HOST PIPE MATERIALS

Compatible with a wide range of host pipe materials, including:

- ▶ Copper
- ▶ Galvanised steel
- ▶ Stainless steel
- ▶ Mild steel
- ▶ Poly (subject to external impediments)

APPROVALS, CERTIFICATIONS & SPECIFICATIONS

- ▶ WMTS-511:2014
- ▶ AS/NZS 4020
- ▶ NSF 61
- ▶ BS6920-1:2014
- ▶ WRAS
- ▶ AS3500



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TECHNICAL DATA SHEET

REDLINE

Redline is a 100% solids epoxy internal coating system designed for the rehabilitation and protection of pressurised metal pipe networks.

The system is applied internally using a controlled air-driven process, forming a continuous, corrosion-resistant lining that restores water quality, improves hydraulic performance, and extends the operational life of existing pipelines.

Redline is primarily used where internal corrosion, scaling, or contamination has affected performance, but the host pipe remains structurally sound.



TECHNICAL DATA TABLE

TYPICAL PROPERTIES	VALUE
Substrate	Redline Epoxy Resin - High viscosity/thixotropic 2-part epoxy resin
Min Wall Thickness	5-7 mils (0.12-0.2mm) per coat
Diameter Range	12mm ~ 150mm
Tensile Strength ASTM D2566	57 MPa
Tensile Elongation ASTM D638	9%
Compressive Strength ASTM D635	82 Mpa
Bond Strength ASTM D4060	20 Mpa
Min Service Temperature	-20°C
Max Service Temperature	65°C
Abrasion Resistance ASTM D695	15 mg loss
Product Warranty	Up to 25 years Subject to Terms & Conditions.



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Structural Performance

Redline is a non-structural coating system and does not provide structural reinforcement.

Key performance characteristics include:

- ▶ Does not increase pipe strength or pressure rating
- ▶ Does not bridge structural defects or large voids
- ▶ Requires the host pipe to retain full structural integrity
- ▶ Designed to prevent further corrosion and leakage, not restore load-bearing capacity

Where structural failure is present, a structural relining solution must be specified.



Hydraulic Performance

Redline restores and improves hydraulic performance by creating a smooth internal coating.

Hydraulic benefits include:

- ▶ Reduced surface roughness compared to corroded metal pipes
- ▶ Improved flow rates and pressure performance
- ▶ Elimination of scaling and internal build-up
- ▶ Reduced risk of future leaks

Coating thickness is minimal and does not significantly reduce internal diameter.

Redline is a non-structural internal coating system and is not suitable for:

- ▶ Pipes with significant structural deterioration
- ▶ Applications requiring external load resistance
- ▶ Large diameter or non-metallic pipe systems
- ▶ Situations with major deformation, collapse, or joint displacement

In such cases, a structural relining solution should be considered.

Durability and Service Life

Redline provides long-term protection against corrosion and internal degradation in pressurised systems.

- ▶ Resistance to corrosion and oxidation
- ▶ Prevention of microbiologically influenced corrosion (MIC)
- ▶ Protection against pinhole leak development
- ▶ Chemical resistance suitable for potable and non-potable systems

The epoxy system has an expected service life of up to 50 years or more, subject to operating conditions and installation quality.



Installation Performance

Redline is installed using a controlled internal coating process specifically developed for pressurised pipe systems.

- ▶ Pipe isolation, draining, and drying prior to application
- ▶ Internal cleaning using abrasive media to remove corrosion and deposits
- ▶ Application of epoxy coating using compressed air where the epoxy negotiates multiple bends and tees.
- ▶ Heat-assisted curing to accelerate polymerisation
- ▶ Minimal disruption with no need for pipe removal or excavation

The process allows pipelines to be returned to service quickly following curing and final system checks.

1 DRAINING



2 CLEANING



3 COATING



4 COMPLETE

