PRODUCT BROCHURE
CORROSION RANGE

CORROSION MAINTENANCE COATING

Si-COAT 579 CM

One coat silicone over prepared rust, for steel you can't shut down to blast.

- One part
- Self priming
- No blasting on most jobs
- Grey or white, RAL to order



Harbour hopper, Durban. TSS case study.

FLORIDA FENCE TEST · 36 MONTHS

1st of 29

One coat on rusted, hand cleaned steel. No rust creep, blistering or loss of adhesion.

POWER PLANT PIPING · FLORIDA

About 20 years

Coated in 2003. Film thickness measured the same about 20 years later.

OVER PREPARED RUST

One coat

0.2 to 0.5 mm dry over hand tool, power tool or water jet cleaned steel.

ISO 12944-6 · WITH CSL 979

C5 High

As the Si-COAT CM System with CSL 979 primer underneath.

Exclusive distributor of CSL Silicones in Southern Africa

+27 (0)31 002 7376
sales@tssupplies.co.za · tssupplies.co.za

WHY THE RUST KEEPS WINNING

The usual repair is a blast to bare metal, then primer, intermediate and topcoat. On a running plant that means a shutdown, containment and weeks of work.

So the job waits for the next shutdown, and the rust keeps going. Edges, welds and bolts go first.



Chlorine plant, Johannesburg. Before and after one coat of 579 CM. TSS case study.

HOW 579 CM FIXES IT

01

One coat over prepared rust

Hand tool, power tool or water jet cleaning. A stripe coat on edges, welds and bolts, then one full coat.

02

It moves with the steel

180% elongation. In bend and impact tests it bridged cracks in the aged coating underneath.

03

Silicone doesn't chalk

5,000 hours UV with colour change under 1 delta E. Handles acid vapour and occasional splash.

PROVEN ON SITE



Fertiliser plant
Hoopstad, Free State. Process trough.



Bulk liquid terminal
Durban, 2025, by Tubetech. No defects at inspection.



Crude oil tank
Hellenic Petroleum, Athens, 2004. About 89% fewer labour hours.



Sulphuric acid tanks
CODELCO, Antofagasta, Chile. Tank exteriors.

WHERE IT GOES

Tank exteriors, pipe racks and supports. Mines, smelters, chemical and fertiliser plants. Substation steel and towers. Bridges, ports and coastal steel.

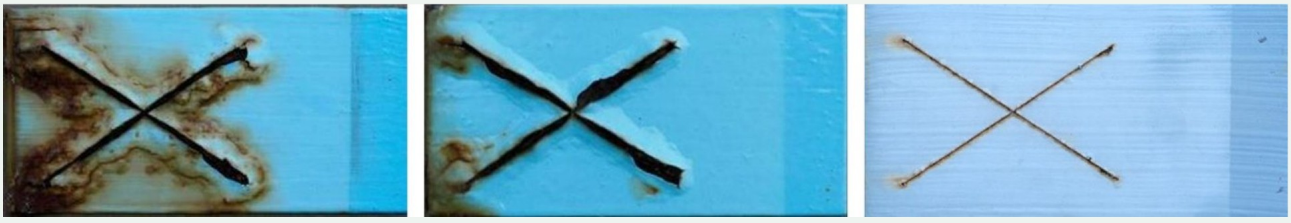
FIELD NOTES

Run one continuous coat from the concrete plinth onto the steel, once curing compound is off. Cured coating comes off bolt threads cleanly, so bolts can still be undone.

TESTED ON RUSTED STEEL

Florida Fence Test · Melbourne Beach

29 SYSTEMS · 36 MONTHS



Panels scribed to bare metal and left on the Atlantic coast for three years. Right: one coat of 579 CM on rusted, hand cleaned steel, with no rust creep, bleed through, pinholes, blistering or loss of adhesion. Left and centre: three coat epoxy and polysiloxane systems on blasted steel, with heavy rust creep.

ISO 12944-6:2018 · C5 HIGH

Si-COAT CM System



About 150 microns of CSL 979 primer plus 150 microns of 579 CM, on hand cleaned steel. 1,680 hours cyclic testing plus 2,500 hours salt spray.

THE REST OF THE RANGE

Si-COAT 581 CM Clear

Same prep and film build as 579 CM. Clear, so you can still see the steel, markings and any leaks underneath.

CSL 979 Primer

Two pack epoxy zinc phosphate. Use it under 579 CM where the spec calls for C5. 579 CM alone carries no ISO 12944 rating.

TECHNICAL DATA

Performance	
Salt fog, ASTM B117	3,000 h, pass
UV, ASTM G154	5,000 h, delta E under 1
Elongation	180%
Impact and mandrel bend	Pass
Pressure washing	Up to 150 bar
Chemicals	Acid vapour, occasional splash, oils, diesel
Service temperature	Minus 60°C to 200°C

Application	
Surface prep	SSPC SP2, SP3 or SP12 WJ-4
Stripe coat	About 0.13 mm (5 mil)
Full coat, dry	0.2 to 0.5 mm (8 to 20 mil)
Coverage	About 0.33 to 0.75 L/m^2
Surface temperature	5°C to 60°C
Skin · tack free	25 min · 60 min
Dry · full properties	4 to 6 h · 7 days

Cure times at 25°C and 50% RH. Apply at least 3°C above dew point. Old coating left on must pass ASTM D3359 at 4A or 4B. Coverage is before losses. For external, above ground steel. Not for tank linings, buried steel, permanent immersion or pooling acid without CSL sign off.

Full product page, TDS and case studies:
tssupplies.co.za/corrosion-maintenance-2

ALSO FROM TSS

ONE SUPPLIER FOR SILICONE COATINGS AND SEALANTS

Every product comes from CSL Silicones in Canada, with the test data to back it and TSS support on site.

570 HS

FLASHOVERS

Si-COAT 570 HS Insulator Coating

RTV silicone for insulators, bushings and arresters. Passed both IEC TR 62730 tests, reports on request.

461 RC

LEAKING ROOFS

CSL 461 RC Roof Coating

High solids silicone roof coating for factories, warehouses and commercial roofs. Withstands ponding water.

316 SL

FAILED JOINTS

CSL 316 SL Joint Sealant

Self levelling silicone for concrete joints on roads, bridges and airports. 10 year warranty.

532 AG

GRAFFITI

Si-COAT 532 AG Clear Anti Graffiti

Clear, low VOC coating. Walls, trains and signs keep their look, and graffiti cleans off.

SEND US THE PROBLEM

Photos, a rough size and where it is. We'll come back with the right product and how to apply it.

Scan to send it

TSS Technical Solution Supplies

Proud exclusive distributor of CSL Silicones across Southern Africa, including the DRC and the Seychelles.

+27 (0)31 002 7376

sales@tssupplies.co.za

tssupplies.co.za

Technical Solution Supplies · Reg 2021/561569/07