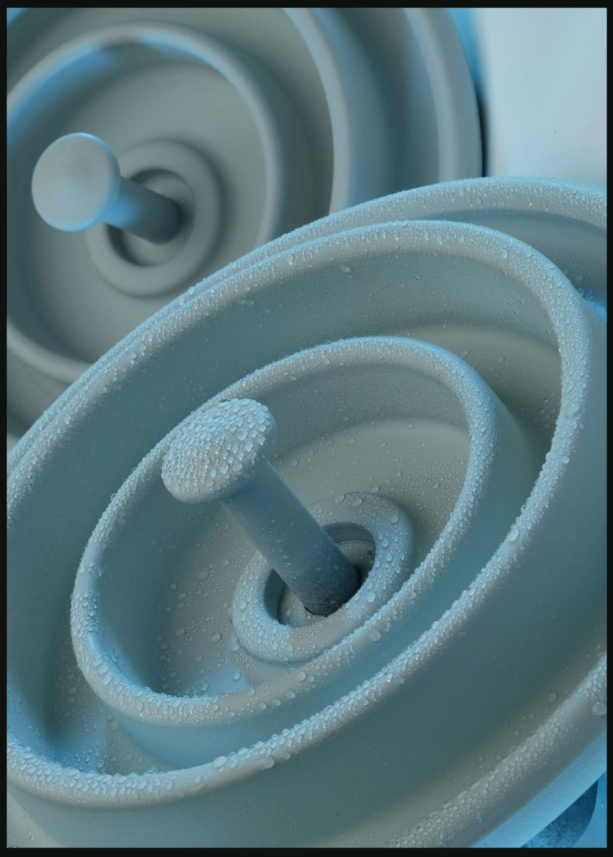
PRODUCT BROCHURE
HIGH VOLTAGE RANGE

HIGH VOLTAGE INSULATOR COATING

Si-COAT 570 HS

One part RTV silicone coating that stops pollution flashovers on insulators, bushings and arresters.

- No primer
- No mixing
- AC and DC
- All voltage levels



Water beads on coated disc insulators.

IEC TR 62730 · CLAUSE 7.2

5,000 hours

Rain, salt fog, heat and sunlight under voltage. No flashovers. Passed.

IEC TR 62730 · CLAUSE 7.1

30,853 cycles

Tracking and erosion wheel test. The standard asks 30,000. Passed.

HYDROPHOBICITY · IEC 62073

116°

Water beads and runs off. The pollution layer stays mostly dry.

FIELD RECORD · PER CSL

15+ years

More than 15 years in service with zero failures.

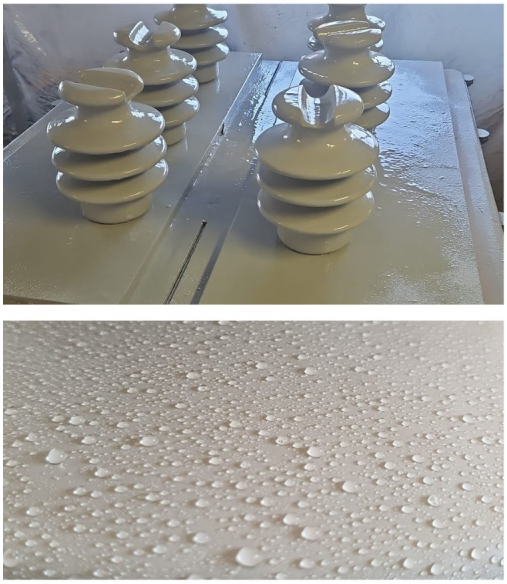
Exclusive distributor of CSL Silicones in Southern Africa

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

HOW A DIRTY INSULATOR TRIPS A LINE

Salt off the sea, dust from mines and fallout from smelters settle on insulators. Fog, dew or light rain wets that layer and makes it conductive. Leakage current flows, dry bands form and arc, and the arcs grow until the insulator flashes over.

The usual answer is washing. That means outages, water and crews, over and over.



Post insulators coated with 570 HS, and water beading on the cured film.

HOW 570 HS STOPS IT

01

Water beads, it doesn't sheet

A 116° static contact angle keeps the surface from wetting out. Leakage current stays low.

02

The dirt turns water repellent too

Low molecular weight silicone moves into the pollution layer, so new dirt also sheds water.

03

Built to resist tracking

ATH filled. CSL uses a larger, patented ATH particle that limits settling in the tin.

WHERE IT GOES

- Porcelain, glass and composite insulators
- Bushings, surge arresters and busbar supports
- Coastal substations and lines
- Mine and smelter substations
- Wind and solar farm substations
- Inside MV switchgear
- Composite insulators that have lost their water repellency
- Refresh coat over older silicone coatings, once cleaned

APPLYING IT

Prep. High pressure water wash at 14 to 70 bar. Cement build up needs dry abrasive cleaning. Remove old grease fully, then wipe with acetone and then isopropyl alcohol.

Apply. Airless spray is best; brush or dip also work. Film thickness per IEEE 1523.

Conditions. Not below 5°C, and the air at least 3°C above dew point.

When. Before energising new equipment, or during a planned outage. Never on live equipment.

IN THE FIELD · CHILE

1 in 4 yrs Lithium mine, Antofagasta. 66 kV line in saline dust. Cleaning went from monthly to once in four years, with no flashovers since 2019.

1 in 3 yrs Coastal distribution utility, Osorno. Cleaning went from monthly to once in three years, with no failures since 2018.

TESTED TO IEC TR 62730

Both tests passed at independent ISO/IEC 17025 accredited high voltage laboratories, on coated porcelain line post insulators.

CLAUSE 7.2 · 2026

5,000 hour multiple stress test

Samples	2 coated porcelain line posts
Cycle	24 h: rain, salt fog (7 kg/m^3), 95% humidity, up to 50°C, xenon arc sunlight
Voltage	18.79 kV, about 27% above the 14.74 kV the standard sets

✓ **No flashovers or trip outs**
✓ **No puncture**
✓ **Erosion under 3 mm, never to the core**
✓ **Insulation resistance above 2 MΩ**

CLAUSE 7.1 · 2025

Tracking and erosion wheel test

Samples	2 coated 11 kV porcelain posts
Cycles	30,853 (the standard asks 30,000)
Voltage	14.3 kV
Solution	Salt water, 1.4 kg/m^3

✓ **No tracking**
✓ **No erosion to the core**
✓ **No puncture**

ESKOM WORK

Eskom Transmission's RTV coating standards list both IEC TR 62730 tests as a test route for heavy and very heavy pollution sites. Si-COAT 570 HS holds accredited reports for both. Approval is Eskom's own process.

Full reports on request
sales@tssupplies.co.za

TECHNICAL DATA

Performance	
Hydrophobicity, IEC 62073	116° static 114° adv · 92° rec
Tracking and erosion, IEC 60587	Pass 1A 4.5, 1B 4.5
UV and salt fog, IEC 61109	5,000 h, no degradation
CEA tracking wheel	Over 1,000 h
Dielectric strength, ASTM D149	About 28 kV/mm (718 V/mil)
Service temperature	Minus 40°C to 250°C

Application	
Dry film, typical	0.38 mm (15 mil)
Dry film, minimum	0.25 mm (10 mil) 0.3 mm for Eskom work
Coverage	About 0.5 L/m^2 before losses
Skin time	20 to 25 min
Tack free	30 to 40 min
Cured through	About 6 h
Full properties	7 days

Cure times at 25°C and 50% relative humidity. One part: no primer, mixing or thinning. Unprimed on glass, porcelain, HTV and LSR silicone, and EPDM. Does not stop animal or bird bridging; that needs guards.

Full test write up and the TDS:
tssupplies.co.za/iec-tr-62730-test-results

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.

579 CM

RUST

Si-COAT 579 CM Corrosion Coating

One coat over prepared rust on above ground steel. Outperformed 28 other coatings in a three year Florida Fence Test.

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

Technical Solution Supplies

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