

### High build solvent-free low emissivity coating

#### Product Description

Corroline TB100 is a long usable life, high build solvent-free low emissivity coating designed to reduce heat transfer from underlying metal surfaces thereby reducing heat loss and the risk of burns through personal contact.

Corroline TB100 also provides long term protection of steel structures against corrosion and reduces the potential for condensation on cold pipework. The material is typically applied on hot pipelines, tanks, process vessels and other land and marine structures. Its long usable life and slow hardening time makes it particularly usable for application to process equipment when still hot and for spray application.

#### Product Features

- Reduces heat transfer through low emissivity
- Suitable for pipelines, tanks, process vessels, etc.
- Excellent corrosion resistance
- High build coating easily applied
- Operating temperatures ranging from -20°C to 140°C
- Excellent adhesion to grit blasted steel

#### Surface Preparation

##### General

Correct surface preparation is essential for the success of any protective coating system. All surfaces should be clean, dry and free from contamination. The substrate surface should be fully inspected and assessed after surface preparation has been completed before proceeding with the application of Corroline TB100.

##### Steel Substrate

All steel surfaces to be coated should be abrasive blasted to ISO 8501/4 Standard SA 2.5 (SSPC SP 10/NACE2) using a suitable blast medium to produce a minimum cleanliness of Swedish Standard SA 2.5 or equivalent and a minimum blast profile of 75 microns using an angular abrasive. Remove all residual blast debris and inspect the surface. Profile checks should be taken and recorded. Once blast cleaned, all prepared surfaces must be coated before rusting or oxidation occur.

Where abrasive blast cleaning is not possible (excluding salt contaminated surfaces) the surface should be roughened by MBX, needle gun or grinding. Under these conditions adhesion levels will not be optimal although satisfactory for most applications.

#### Mixing

Corroline TB100 is a two component system supplied as a base and activator.

For brush or roller application stir the content of the base component and while continuing stirring, gradually add 1/3 of the total contents of the activator and continue agitating until incorporated. Add the remaining activator and mix until a homogenous mix is obtained.

Once mixed, the usable life of the product is 90 minutes at 20°C. this time will increase at lower temperature and decrease at higher temperatures.

Where small volume mixes are required, the mixing ratio is 5 parts base to 1 part activator by volume.

#### Application

##### Precautions

- Do not apply when relative humidity exceeds 90%, when the surface to be coated is less than 3°C above the dew point or when the substrate temperature is less than 50°C.

##### Application Method

The degree of thermal barrier protection is directly proportional to the applied thickness of the coating and so the thickness required will be dependent on the temperature of the underlying substrate and the temperature reduction required. The product has been designed to be applied to surfaces ranging from 50°C to 100°C. Use the table as a guide for coating thickness.

Coating Thickness	50°C	60°C	80°C	100°C
1st coat	500 microns	500 microns	250 microns	250 microns
2nd coat	500 microns	500 microns	250 microns	250 microns
3rd coat	750 microns	750 microns	500 microns	500 microns
4th coat	1mm	1mm	750 microns	750 microns
5th coat	1mm	1mm	1mm	1mm
6th coat	N/A	N/A	1mm	1mm
7th coat	N/A	N/A	1mm	1mm
TOTAL	3.75mm	3.75mm	4.75mm	4.75mm

Apply the mixed material onto the prepared surface by brush or squeegee. Apply subsequent coats as soon as possible after the underlying coat is touch dry and not in excess of 24 hours. Where maximum over-coating interval is exceeded, the underlying coat should be allowed to fully harden before being sweep blasted and cleaned prior to over-coating.

Where spray application is required, this should be carried out by heated airless spray. A typical spray set up will involve a 63:1 airless spray unit with either in-line heater or trace heated lines capable of heating the product between temperature range of 35 - 45°C, an input pressure of 60 psi and a tip size of 19-21 thou. The practical coverage rate for spraying is 1 m<sup>2</sup> per litre for a 1000 micron coating.

# Corroline TB100

13 litres of fully mixed product will give the following coverage rates:

- 52 m<sup>2</sup> @ 250 microns
- 26 m<sup>2</sup> @ 500 microns
- 17 m<sup>2</sup> @ 750 microns
- 13 m<sup>2</sup> @ 1 mm

## Overcoating Window

Curing Times	
Hard Dry	12 hrs
Light loading	24 hrs
Full loading	7 days
Chemical contacts	10 days
Usable life	@ 30°C 45 min @ 20°C 1.5 hours

## Inspection

Corroline TB100 can be inspected for pinholes and holidays using a high voltage spark tester. Before testing, the coating should be washed down with clean water to remove any contamination on the surface and allowed to dry. Typical voltage for testing should be 3kV but please refer to the equipment manufacturer's recommendations as voltages may vary with equipment type.

## Technical Data

Test	Standard	Result
Appearance		Aluminium coloured thixotropic liquid
Mix ratio		5.5:1 by volume
Working life		Nil at 3 mm
Total solids content		100%
Volume capacity		1.886 litres/kg
Film thickness		minimum 2 coats @ 1000 microns per coat
Density		0.53 g/cc
Theoretical coverage rate		0.85 m <sup>2</sup> per litre @1000 microns DFT
Temperature resistance		suitable up to 140°C dry service
Tensile shear	ASTM D1002	187 kg/cm <sup>3</sup> (2650 psi)
Hardness@20°C	ASTM D2240	80 shore D
Lambda value		0.10 W/m.K@ΔT up to 93°C - 0.11 W/m.K@ΔT up to 117°C
Corrosion resistance	ASTM B117	min 1000 hours
Sag resistance		Nil at 3 mm

## Technical Support

Corrotech Construction Chemicals offer complete technical support and assistance from discussing application requirements to training approved local contractors. For further information please contact a Corroline representative or your nearest dealer.

## Health & Safety

Please refer to the product material safety data sheet for detailed information on handling, storage, shipping and disposal.

## Packaging and Storage

Supplied in 13 litre pack. Bulk packaging available.

Shelf life 5 years providing it is stored between 5°C and 30°C in original sealed containers.

## Warranty

Corrotech Construction Chemicals guarantees this product will meet the performance claim stated herein when material is stored and used as instructed. Corrotech Construction Chemicals further guarantees that all its products are carefully manufactured to ensure the highest quality possible and tested strictly in accordance with universally recognized standards (ASTM, ANSI, BS, DIN, etc). Since Corrotech Construction Chemicals has no control over the use of the products described herein, no warranty for the application can be given.

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This technical data sheet is given in good faith and does not guarantee the application work. All Corrotech technical data sheets & method statements are updated on a regular basis and can be subject to change without notice. It is the users responsibility to obtain the latest version of the information required.

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