CORROLINE

Technical Data Sheet:
CORROLINE PW SF100

WRAS APPROVED PRODUCT

High performance potable water coating

Product Description

Corroline PW SF100 has been specifically developed for the long term protection of concrete and steel drinking water pipelines, storage and processes vessels, or tanks and other water retaining structures and related steelwork immersed or in contact with potable water.

PW SF100 is a 100% solids, solvent free system, designed to be applied in a single coat either by heated plural feed spray, brush, squeegee or roller.

Product Features

- Solvent free system – no VOCs.
- Sag resistant at 500 microns allowing single coat application.
- Adheres strongly to steel and concrete.
- Suitable for contact with potable water.
- Outstanding erosion-corrosion resistance.
- Theoretical coverage rate of 2m² per litre at 500 microns dry film thickness.
- Immersion temperature resistance up to 60°C depending on the chemicals involved – please refer to Corroline Chemical Resistance Chart

Typical Application

Internal protection of:
- Potable water pipelines
- Sea water pipelines
- Waste water pipelines
- Potable water tanks
- Process vessels
- Waste water treatment plants

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 PW SF100.

Steel Substrate

All steel surfaces to be coated should be abrasive blasted using a suitable blast medium to produce a minimum cleanliness of Swedish Standard SA 2.5 or equivalent and a minimum 75 microns angular profile. Remove all residual blast debris and inspect the surface. Profile checks should be taken and recorded.

Concrete

New concrete must be cured for at least 28 days before lightly abrading taking care not expose the aggregate.

Any obvious voids or damage should be repaired using a suitable epoxy mortar, and re-abraded. All dust and spent abrasive should be removed from the surface prior to coating. In most situations a primer coat will be necessary - please consult your local Corroline representative.

Mixing

Corroline PW SF100 is a two component system supplied as a base and activator.

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

Once mixed, the usable life of the product is 30 minutes at 20°C. This time will increase at lower temperatures and decrease at higher temperatures.

Where small volume mixes are required, the mixing ratio is 2 parts base to 1 part activator by volume.

For spray application (see below) a suitable in-line static mixer should be used.

Application

Precautions

- Do not apply when relative humidity exceeds 90%, when the surface to be coated in less than 3°C above the dew point or when the ambient or substrate temperature is less than 5°C. For best results, especially when applying material by hand, the ambient or substrate temperature should be at least 10°C.

- To ensure coating integrity and minimum thickness, use a short bristled brush to stripe coat all welds, around bolt holes, edges and other sharp protrusions. Allow to cure until touch dry prior to carrying out the overall application of Corroline PW SF100 and do not exceed the maximum over-coating time of 12 hours.

Application Method

Corroline PW SF100 is best applied using heated plural component airless spray equipment but for smaller applications brush, squeegee or foam roller application is suitable.

Plural component airless spray: both the base and activator should be warmed so that the temperature at the tip is between 55°C and 65°C while avoiding excessive heating of the activator. Typical tip sizes of between 18 and 25 thou should be employed along with a tip pressure of around 4000 psi to give effective atomization. Further information and advice on application procedures and spin spraying is

Wet film thickness measurements should be taken and recorded at regular intervals to verify compliance to specification.

Brush or roller: A good quality brush or foam roller should be used when applying Corroline PW SF100 by hand. Corroline PW SF100 should be applied to give a uniform even coating thickness and wet film thickness checks made as above.

All equipment can be cleaned immediately after use with Corroclean.

Cure Times

Where it is necessary to apply more than one coat of Corroline PW SF100, this can be done as soon as the material is touch dry and no longer than 12 hours after the initial application. Where this maximum over-coating time is exceeded the material should be allowed to fully harden before being lightly sweep blasted to remove the surface layer prior to over-coating.

Curing Times	20°C	30°C	40°C
Touch Dry	4 hours	2 hours	1 hour
Hard Dry	6 hours	3 hours	1.5 hours
Full Cure	7 days	4 days	2 days

Inspection

Corroline PW SF100 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.

Technical Data

Typical voltage for testing should be 4kV but please refer to the equipment manufacturer's recommendations as voltages may vary with equipment type.

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 either 4.5 & 15 litre packs. Bulk packaging available on request.

Shelf life is 2 years providing it is stored between 5°C and 35°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.

Test	Standard	Result
Abrasion Resistance	ASTM D4060	40 mgm weight loss per 1000 cycles-1 kg load- CS17wheel
Impact Resistance	ASTM D2794	0.26 kg.m
Dry Heat Resistance	ASTM D2485	135°C 275°F
Direct Pull Adhesion	ASTM D4541	120 kg/cm²(1760 psi) - grit blasted steel
Water Vapor Permeability	ASTM D1653	3.75 x 10^{-6} perm.cm
Pencil Hardness	ASTM D3363	5H
Salt Fog Resistance	ASTM B117	Excellent, unaffected after 10,000 hours exposure
Scrub Resistance	ASTM D2486	>10,000 cycles
Cathodic Disbondment	ASTM G8	pass <6 mm
Humidity Resistance	BS 3900 Part F2	Unaffected 5,000 hours exposure
Bacteria Resistance	BS 4618 Section 4.5	Excellent
Mould Resistance	BS3900 Part 6	Excellent
Scratch Resistance	BS3900 Part E2	No Failure 2.5 kg (5.5lbs) load
Drinking Water Approvals	WRAS BS 6920 Part 1:2000 and Part 3:2000	Pass

Corroline is made under license by:
Corrotech Construction Chemicals;
P.O. Box 8344, Dubai, U.A.E.
Tel: +971 4 8112100;
Fax:+971 4 8112101;
www.mctuae.com