RESICHEM 583 Chemsil UC –

solvent free silicon chemical resistant coating

Resichem 583 Chemsil UC is a single component moisture cured high build solvent-free silicone coating designed to provide outstanding chemical and corrosion protection of steel and concrete structures. The coating is particularly resistant to attack by organic acids, and chlorination agents. The product offers a flexible, seamless chemically resistant lining once cured and remains flexible down to -60˚C.

- Single component & solvent free
- Ideal for splash resistance or short term immersion in organic acids

Typical applications

Chemical containment areas pump bases structural steel external pipe surfaces
Tank Base sealing

Surface Preparation

Metallic Substrates – Mechanical abrasion

1. All oil and grease must be removed from the surface using an appropriate cleaner such as MEK.
2. All surfaces must be mechanically abraded using handheld grinders to ***ISO 8501/4 ST3 (SSPC SP3 ST3)***.
3. Once abraded, the surface must be degreased and cleaned using MEK or similar type material.
4. Prime all surfaces with 589 Adhesion Promoter, apply the primer as liberally as possible.

Metallic Substrates – Abrasive blast cleaning

1. All oil and grease must be removed from the surface using an appropriate cleaner such as MEK.
2. All surfaces must be abrasive blasted to ***ISO 8501/4 Standard SA2.5 (SSPC SP10/ NACE 2)*** minimum blast profile of 75 microns (3mil) using an angular abrasive.
3. Once blast cleaned, the surface must be degreased and cleaned using MEK or similar type material.
4. Prime all surfaces with 589 Adhesion Promoter, apply the primer as liberally as possible.

PLEASE NOTE: *For salt contaminated surfaces the substrate must be pressure washed with clean water and checked for salt contamination, please refer to the surface preparation and pre-application guide for further information.*

Existing Concrete

1. If the concrete surface is contaminated, pressure wash using clean water.
2. Once the concrete is dry, lightly abrasive blast or scarify taking care not to expose the aggregate.
3. Clean all dust and debris from the surface and prime with Resichem 589 Adhesion Promoter.

Mixing

Prior to mixing please ensure the following:

1. The base component is at a temperature between 15-25°C (60-77F°).
2. The ambient & surface temperature is above 5°C (40F°).
3. The ambient & surface temperatures are not less than 3°C (6°F) above the dew point.

Once these 3 checks have been met, please proceed with mixing the product.

1. 583 Chemsil UC is single component material.
2. Using an electric paddle mixer,agitate the material for 2-3 minutes.
3. The material should be used within 30 minutes at 20°C (68°F).

Application

Vertical surfaces

1. Resichem 583 Chemsil UC must be applied to all vertical concrete or metallic surfaces in 2 coats.
2. Use a brush or foam roller to apply the material.
3. Apply the coating in 2 coats at 400-500 microns (16-20mil) WFT per coat.

Horizontal/ flat surfaces

1. Resichem 583 Chemsil UC can be applied in a single coat using a squeegee to all flat surfaces.
2. The product must be applied at a wet film thickness of 1000 microns (40mil).
3. Once the surface has been coated with Resichem 583 Chemsil UC at 1mm (40mil) wet film thickness a spiked roller can be rolled over the surface to smooth out any marks or undulations on the wet resin surface.

Reinforcement - Where additional strength is required in the coating, use Flextech 806 reinforcement mesh.

1. Use a brush or foam roller to apply the material.
2. Apply the 1st coating at 400-500 microns (16-20mil) WFT per coat.
3. While the resin is still wet lay Flextech 806 reinforcement mesh onto the surface.
4. Gently back roll the surface, ensuring there are no folds or creases in the reinforcement mesh.
5. Leave to cure for 3-4 hours at 20°C (68°F).
6. Apply a 2nd coat of 583 Chemsil UC at 400-500 microns (16-20mil) WFT per coat and leave to cure for 24 hours.

Coverage Rates

4ltrs (1.05 US gallon) of product will give the following coverage rates –

8m² at 500 microns 85ft² at 20mil

Please note that the coverage rates quoted are theoretical and do not take into consideration the profile or condition of the surface being repaired.

Cure Times

At 20°C (68°F) the applied materials should be allowed to harden for the times indicated below before being subjected to the conditions indicated. These times will be extended at lower temperatures and reduced at higher temperatures:

Usable life	30 minutes
Initial Set	3-4 hours
Full cure	12 hours

Pack Sizes

This product is available in the following pack sizes –

4ltrs (1.05 US gallon)

Colour

Single component – Grey or white

Over-coating times

Minimum - the material can be over-coated as soon as it is touch dry, approximately 3-4 hours at 20°C (68°F).

Maximum – indefinite

Storage Life

1 year if unopened and store in normal dry conditions (15-30°C/ 60-86F°)

Other Technical Documents

Safety Data Sheets	-	Single component
Product Specification Sheet	-	Technical Performance Information

Health and Safety

Please ensure good practice is observed at all times. Protective gloves, goggles & a disposable coverall must be worn during the mixing and application of this product. Before mixing and applying the material ensure you have read the fully detailed Safety Data Sheet.

Legal Notice: