

RESICHEM 511 UCEN

Resichem 511 UCEN is a high build solvent-free epoxy novalac coating designed to provide outstanding chemical and corrosion protection of steel and concrete structures. The coating is particularly resistant to attack by strong acids including 98% sulphuric acid.

Typical applications

Chemical containment areas, tank lining, process vessels, chemical drains and channels, internal pipe surfaces, sumps

Characteristics

Appearance

Base: Highly structured thixotropic liquid
Activator: Amber liquid
Mixed: Thixotropic liquid

Mixing Ratio

By weight: 4:1
By volume: 3:1

Density

Base: 1.41
Activator: 1.02
Mixed: 1.32

Solids content

100%

Sag Resistance

Nil at 500 microns

Coverage

Resichem 511 UCEN must be applied as a 2 coat system to properly prepared surfaces.

Brush, roller or spray applications:

The material should be applied in two coats at a thickness of 400-500 microns WFT per coat.

At 400-500 microns Resichem 511UCEN will have a theoretical coverage rate of 2-2.5m² per ltr per coat.

Cure Times

The applied material should be allowed to harden for the times indicated below before being subjected to the conditions indicated:

Usable life

10°C 50 minutes
20°C 25 minutes
30°C 12 minutes
40°C 6 minutes

Minimum overcoating time

10°C 8 hours
20°C 4 hours
30°C 2 hours
40°C 1 hour

Maximum overcoating time

10°C 24 hours
20°C 12 hours
30°C 6 hours
40°C 3 hours

Water/ sea water immersion

10°C 8 days
20°C 4 days
30°C 2 days
40°C 1 day

Chemical immersion

10°C 14 days
20°C 7 days
30°C 3.5 days
40°C 1.75 days

Storage life

5 years if unopened and stored in normal dry conditions (15-30°C)

Mechanical Properties

Abrasion Resistance

Taber CS17 Wheels/1 Kg load
138mg loss/1000 cycles
0.18cc loss/1000 cycles

Tensile Shear Adhesion

Tensile Shear to ASTM D1002 on abrasive blasted mild steel with 75 micron profile
208 kg/ cm² (2950 psi)

Compressive strength

Tested to ASTM D 695
984kg/cm² (13950psi)

Corrosion Resistance

Tested to ASTM B117
Minimum 5000 hours

Flexural Strength

Tested to ASTM D790
871kg/cm² (12300psi)

Heat Distortion

Tested to ASTM D648 at 264psi fibre stress.
20°C Cure 52°C
100°C Cure 75°C

Hardness

Shore D to ASTM D2240
85

Heat Resistance

Suitable for use in immersed conditions at temperatures up to 60°C. Resistant to dry heat up to 200°C dependant on load.

Chemical Resistance

The product resists attack by a wide variety of inorganic acids, alkalies, salts and organic media including:

<i>Typical Chemicals</i>	<i>Maximum immersion Temperature</i>
Acetic Acid 10%	30°C
Ammonia Hydroxide 30%	45°C
Benzene 100%	35°C
Butanol 100%	40°C
Chromic Acid 10%	40°C
De-ionised Water	40°C
Ethanol 100%	45°C
Hydrobromic Acid 40%	30°C
Hydrochloric Acid 36%	35°C
Nitric Acid 10%	30°C
Phosphoric Acid 75%	45°C
Steam out	180°C
Sulphuric Acid 98%	40°C
Toluene 100%	40°C
Xylene 100%	40°C

For more detailed information refer to the Resimac Technical Centre for advice.

Quality

All Resimac Products are supplied under the scope of the company's fully documented quality system.

Warranty

Resimac warrants that the performance of the product supplied will conform to the typical descriptions quoted within this specification provided material is stored correctly and used according to the procedures detailed in the Technical Data Sheet for the material.

Health and safety

Please ensure good practice is observed at all times during the mixing and application of this product. Protective gloves and other recommended personal protective equipment must be worn during the mixing and application of this product. Before mixing and applying the material please ensure you have read and fully understood the detailed Material Safety Data Sheet

Legal Notice: The data contained within this Product Specification is furnished for information only and is believed to be reliable at the time of issue. We cannot assume responsibility for results obtained by others over whose methods we have no control. It is the responsibility of the customer to determine the products suitability for use. Resimac accepts no liability arising out of the use of this information or the product described herein.