RESICHEM 512 UCEN 90 XL

Resichem 512 UCEN 90 XL is a high build solvent-free high functionality epoxy novolac coating designed to provide outstanding chemical and corrosion protection of steel and concrete structures at elevated temperatures. The coating has been designed to be applied by roller or standard airless spray equipment and once cured will resist high concentration chemicals such as 98% sulphuric acid at immersion temperatures up to 75°C.

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:	4.35:1
By volume:	3.25:1

Density

Base:	1.41
Activator:	1.05
Mixed:	1.33

Solids content

100%

Sag Resistance

Nil at 500 microns

Coverage

Resichem 512 UCEN 90 XL should be applied in 2 coats at 500 microns (20mil) wet film thickness per coat.

At 500 microns (20mil) Resichem 512 UCEN 90 XL will have a theoretical coverage rate of 2m² 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	90 minutes
20°C	45 minutes
30°C	22 minutes
40˚C	11 minutes

Minimum overcoating time

10°C	16 hours
20°C	8 hours
30°C	4 hours
40˚C	2 hour

Maximum overcoating time

10°C	48 hours
20°C	24 hours
30°C	12 hours
40˚C	6 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
0.15cc loss/1000 cycles

Tensile Shear Adhesion

Tensile Shear to ASTM D1002 on abrasive blasted mild steel with 75 micron profile
201kg/ cm² (2855psi)

Compressive strength

Tested to ASTM D 695
901kg/cm² (12800psi)

Corrosion Resistance

Tested to ASTM B117
Minimum 5000 hours

Flexural Strength

Tested to ASTM D790
810kg/cm² (11500psi)

Heat Distortion

Tested to ASTM D648 at 264psi fibre stress.

20°C Cure	60°C
100°C Cure	98°C
150°C Cure	112°C

Hardness

Shore D to ASTM D2240

20°C	86
100°C	85
150°C	72

Heat Resistance

Suitable for use in immersed conditions at temperatures up to 90°C. Resistant to dry heat up to 200°C dependent on load.

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Product Specification

Chemical Resistance

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

Typical Chemicals	*Maximum Immersion Temperature*
Acetic Acid 10%	50˚C
Ammonia Hydroxide 30%	80˚C
Benzene 100%	60˚C
Butanol 100%	50˚C
Chromic Acid 10%	75˚C
Ethanol 100%	60˚C
Hydrocarbons with steam	90˚C
Hydrobromic Acid 40%	50˚C
Hydrochloric Acid 36%	75˚C
Nitric Acid 10%	50˚C
Phosphoric Acid 75%	90˚C
Steam out	200˚C
Sulphuric Acid 98%	75˚C
Toluene 100%	60˚C
Xylene 100%	60˚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

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