

## RESICHEM 513 AREN

Resichem 513 AREN is a high build solvent-free epoxy novolac coating designed to provide outstanding abrasion & chemical protection of steel and concrete structures at elevated temperatures. The coating contains hardened ceramic particles making it ideal for highly abrasive environments with strong industrial chemicals and acids.

### Typical applications

Tank lining, process vessels, chemical drains and channels  
Internal pipe surfaces, sumps pumps & valves.

### Characteristics

#### Appearance

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

#### Mixing Ratio

By weight: 5:1  
By volume: 3.5:1

#### Density

Base: 1.55  
Activator: 1.05  
Mixed: 1.43

#### Solids content

100%

#### Sag Resistance

Nil at 650 microns

### Coverage

Resichem 513 AREN should be applied in 2 coats at 500 microns (20mil) wet film thickness per coat.

At 500 microns (20mil) Resichem 513 AREN will have a theoretical coverage rate of 2m<sup>2</sup> 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  
64mg loss/1000 cycles  
0.08cc loss/1000 cycles

#### Tensile Shear Adhesion

Tensile Shear to ASTM D1002 on abrasive blasted mild steel with 75 micron profile  
196kg/ cm<sup>2</sup> (2790psi)

#### Compressive strength

Tested to ASTM D 695  
790kg/cm<sup>2</sup> (11235psi)

#### Corrosion Resistance

Tested to ASTM B117  
Minimum 5000 hours

#### Flexural Strength

Tested to ASTM D790  
820kg/cm<sup>2</sup> (11600psi)

#### 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.

## Chemical Resistance

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

<i>Typical Chemicals</i>	<i>Maximum Immersion Temperature</i>
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

**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.