

PRODUCT SPECIFICATION SHEET: REPCHEM 5501 IGCR

PRODUCT DESCRIPTION

REPCHEM 5501 IGCR is a high build solvent-free epoxy coating designed for the long term protection of steel and concrete structures against corrosion, abrasion and chemical attack. Then coating can be applied to mechanical or abrasive blast cleaned surfaces and will cure at temperatures as low as 5°C

TYPICAL APPLICATIONS

Pipelines
Internal and external tanks
Chemical containment and bund areas
Sheet and bearing piles
land and marine structural steel
Effluent tanks

GENERAL PRODUCT INFORMATION

Appearance

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

Mixing Ratio

By weight: 4:1
By volume: 2.4:1

Density

Base: 1.78
Activator: 1.04
Mixed: 1.56

Solids content

100%

Sag Resistance

Nil at 400 microns

Working life

Working life will vary with temperature. Increases in temperature will reduce the working life of the product. As a guide the usable life of the material is:

10°C 60 minutes
20°C 30 minutes
30°C 15 minutes

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. Times will be extended at lower temperatures and reduced at higher

temperatures as a general rule these times will be doubled at 10°C and halved at 30°C.

Temperature	Movement without load or immersion	Machining and light loading	Full Immersion	Chemical Contact
10°C/50F°	12	1 Day	8 Days	14 Days
20°C/68F°	6 Hours	12 hours	4 Days	7 Days
30°C/86F°	3 Hours	6 Hours	2 Days	4 Days
40°C/104F°	1 ½ Hours	3 Hours	1 Day	2 Days

Coverage Rate

The material should be applied by brush or roller in two coats at a target thickness of 250 microns per coat using a practical coverage rate of 4 m² per litre per coat.

The practical coverage rate for spraying is 2 m² per litre for a 500 micron coating.

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

Storage life

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

HEAT RESISTANCE

Suitable for use in immersed conditions at temperatures up to 60°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, alkalies, salts and organic media including:

Aviation Fuel
Brine
Crude Oil
Ethylene Glycol
Hydrochloric Acid (20%)
Hydraulic Oil
Naphtha
Petrol
Sodium hydroxide
Sulphuric acid (20%)

For more detailed information refer to the Repco chemical resistant charts

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MECHANICAL PROPERTIES

Adhesion

Tensile Shear when tested in accordance with ASTM D1002 on abrasive blasted mild steel with a 75 micron profile will typically be:

194kg/cm² 2,750 psi 18.9 MPa

Impact Resistance

When tested in accordance with ASTM G 14, typical values will be:

2.0 joules

Cathodic Disbondment

Tested to ISO 21809-3:2016 28 days, 1.5v, 3% NaCl

23°C 2.3mm
65°C 5.1mm
95°C 7.7mm

Compressive strength

When tested in accordance with ASTM D 695, typical values will be:

649kg/cm² 9200psi 63.4 MPa

Corrosion Resistance

When tested in accordance with ASTM B117 the material shows no sign of corrosion after:

Minimum 5000 hours Exposure

Flexural Strength

When tested in accordance with ASTM D790 typical values will be:

522kg/cm² 7400psi 51.0 MPa

Hardness

Shore D

Tested to ASTM D2240 typical value will be: 80

TECHNICAL SUPPORT

Zoom Corrosion Technology offer complete technical support and assistance, from discussing application requirements to training approved local contractors. For further information please contact a REPCO representative or your nearest REPCO authorised dealer.

HEALTH AND SAFETY

Please refer to the product safety data sheet for detailed information on handling, storage, shipping and disposal.

Legal Notice: The data contained within this Product Specification Sheet 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. Zoom Corrosion Technology accepts no liability arising out of the use of this information or the product described herein.

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