

PRODUCT SPECIFICATION SHEET: REPCHEM 5511 UCEN

PRODUCT DESCRIPTION

REPCHEM 5511 UCEN is a high build solvent-free epoxy novolac 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 and bund areas, tanks, pumps, chemical drains and channels and pipework.

GENERAL PRODUCT INFORMATION

Appearance

Base: Red/Grey Paste
Activator: Amber Liquid
Mixed: Red/Grey 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%

Slump Resistance

Nil at 500 microns

COVERAGE RATE

Repchem 5511 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 Repchem 5511 UCEN will have a theoretical coverage rate of 2- 2.5m² per ltr per coat.

Storage life

The shelf life of the product is typically 5 years if unopened and stored in normal dry conditions (15-30°C/ 60-86°F). Once opened replace the lid firmly and store as above.

CURE TIMES

At 20°C (68F°) the applied materials 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

HEAT RESISTANCE

Heat Distortion Temperature (HDT)

Tested to ASTM D648 (264 psi fibre stress), typical values are:

Cure Temperature	HDT
20°C Cure	52°C
100°C Cure	75°C

Heat Resistance

Suitable for use in immersed conditions at temperatures up to 60°C, dependent on chemical contact.

Resistant to dry heat in excess of 200°C dependent on load.

PRODUCT SPECIFICATION SHEET:
REPCHEM 5511 UCEN

MECHANICAL PROPERTIES

Testing is typically done under laboratory conditions at a temperature of 20°C unless otherwise specified.

Adhesion

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

208kg/cm² 2,950 psi 20.3 MPa

Compressive strength

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

984kg/cm² 13,950psi 96.1 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:

871kg/cm² 12300psi 84.8 MPa

Hardness

Shore D

Shore D to ASTM D2240

20°C 85
100°C 50

CHEMICAL RESISTANCE

Resichem 511 UCEN offers excellent resistance to the following chemicals when tested at 20°C:

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

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 Technical Data 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.

Repcos products are manufactured for:
Zoom Corrosion Technology
Pembroke Lodge, 3 Pembroke Road, Ruislip,
HA4 8NQ, England, UK
Tel: +44 (0) 794 934 1074
Email: sales@zoomct.com
www.zoomct.com

ZOOM
CORROSION TECHNOLOGY