

PRODUCT DESCRIPTION

REPTHERM 5530 HA is a single component heat activated high build solvent-free epoxy novolac coating. It is designed to be applied directly to hot steel to provide outstanding corrosion protection. It is particularly effective on thermal lines where Corrosion Under Insulation is a problem.

TYPICAL APPLICATIONS

Applications to hot pipework, process equipment, tanks, especially to overcome problems of Corrosion Under Insulation. Also has excellent adhesion to Thermoplastics such as Polypropylene, making it ideal for use on pipeline weld joints.

GENERAL PRODUCT INFORMATION

Appearance

Single Component: Red Thixotropic Material

Mixing Ratio

Not applicable

Density

Material: 1.40

Solids content

100%

Slump Resistance

Nil at 650 microns at 100°C

Nil at 500 microns at 150°C

Nil at 350 microns at 240°C

Coverage Rate

Reptherm 5530 HA must be applied to surfaces above 100°C

The material should be applied in two coats at 400 microns WFT per coat. Each 400 micron coat will have a theoretical coverage rate of 2.5m² per litre.

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

SHELF LIFE

The shelf life of the product is 2 years if unopened and stored in cool dry conditions (15-30°C/ 60-86°F). Once opened replace the lid firmly and store as above.

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:

197kg/cm² 2,800 psi

Pull off Adhesion to ASTM D4541 on abrasive blasted mild steel with 75 micron profile. Immersed in water at 4°C for 120 hours, steel plate heated to 75°C followed by dry exposure at 200°C for 120 hours.

>21 Mpa 3,045psi - **Adhesive failure of adhesive**

Corrosion Resistance

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

Minimum 5000 hours Exposure

Flexural Strength tested in accordance with ASTM D790 typical values will be:

518kg/cm² 7,350psi

Hardness

Shore D to ASTM D2240

100°C 86

150°C 80

200°C 72

Intercoat Adhesion with Thermoplastics

Application to Polypropylene at 150°C

Cross hatch adhesion – Pass

Heat Resistance

Resistance to immersed conditions at temperatures up to 60°C. Resistant to dry heat up to 240°C dependent on load.

Immersed - Tested by Eddy Current and Ultrasonic techniques after coated steel immersed in water at 4°C for 120 hours with the temperature of the steel at up to 75°C, followed by dry exposure at 200°C for 16.7 hours

No change in thickness of coating or any disbondment

Cathodic Disbondment

Tested to ISO 21809-3 Annex F in 3% NaCl at 1500mV 23°C for 28 days - **Average 4 mm (pass)**

Tested to ISO 21809-3 Annex F in 3% NaCl at 1500mV at 65°C for 28 days - **Average 4 mm (pass)**

PRODUCT SPECIFICATION SHEET:

REPTHERM 5530 HA

CURE TIMES

The material should be applied to surface temperatures above 100°C and allowed to harden for the times indicated below before being subjected to the conditions indicated:

Touch Dry

100°C	50 minutes
150°C	3 minutes
200°C	30 seconds
240°C	10.15 seconds

Maximum Overcoating Time

100°C	3 hours
150°C	1 hour
200°C	15 minutes
240°C	7 minutes

Full Cure

100°C	24 hours
150°C	4 hours
200°C	30 minutes
240°C	15 minutes

CHEMICAL RESISTANCE

The product resists attack by a wide variety of aqueous acidic solutions at elevated temperature and other media at lower temperatures. Refer to the Repco Technical Centre for advice.

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.

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