



205 Ceramic HT Fluid

Engineered to protect metal surfaces from erosion and corrosion in high temperature environments, it is suitable for both hydrocarbon & aqueous applications.

- Resists high temperature fluid flow environments up to 130°C (265°F)
- Brushable for easy application
- Suitable for hydrocarbon and aqueous immersion

2025 Product Sheet



Typical Applications

205 Ceramic HT Fluid is a two component, epoxy novolac coating formulated to provide reliable protection in high temperature environments. It offers resistance to erosion and corrosion in aqueous and hydrocarbon mixtures at temperatures up to 130°C (265°F). The solvent free formulation ensures safe application, whilst adhering strongly to metal surfaces, making it ideal for industrial equipment exposed to extreme conditions.

- Condensate extraction pumps
 - Return tanks
 - Calorifiers
 - Distillation units
- Evaporators
 - Heat exchangers
 - Scrubber units
 - Filters
 - Process vessels

Cure times

Usable Life		Min overcoating time		Max overcoating time			
10°C/50°F	70 minutes	10°C/50°F	8 hours	30°C/86°F (50% or less humidity)	24 hours	10°C/50°F	24 hours
20°C/68°F	35 minutes	20°C/68°F	4 hours	30°C/86°F (>50% humidity)	18 hours	20°C/68°F	24 hours
30°C/86°F	17 minutes	30°C/86°F	2 hours	40°C/104°F (50% or less humidity)	18 hours		
40°C/104°F	8.5 minutes	40°C/104°F	1 hour	40°C/104°F (>50% humidity)	8 hours		

Characteristics

Appearance		Density	
Base	Dark or Light Grey Paste	Base	2.48
Activator	Amber liquid	Activator	0.99
Mixed	Grey viscous liquid	Mixed	2.18
Solids Content		Mixing Ratio	
100%		By weight	10:1
		By volume	4:1
Volume Capacity		Storage Life	
459cc/Kg		5 years if unopened and stored in normal dry conditions, 15–30°C (59–86°F)	
Sag Resistance			
Nil at 1000 microns			

Post Cure
8 hours at 60 °C (140°F) to achieve maximum performance. Can be accelerated with higher temperatures.

Mechanical Properties

Abrasion Resistance

Taber CS17 Wheels/1kg load
28mm³ loss/1000 cycles

Compressive Strength

Tested to ASTM D695
1046kg/cm² (14880psi)

Corrosion Resistance

Tested to ASTM B117
Minimum 5000 hours

Flexural Strength

Tested to ASTM D790
614kg/cm² (8710psi)

Atlas Cell Testing

NACE TM0714 A
Tested to ASTM D714
Rating 10
Tested to ASTM D610
Rating 10

Adhesion

Tensile Shear to ASTM D1002 on
abrasive blasted mild steel with 75
micron profile 245kg/cm² (3480psi)

Pull off Adhesion to ASTM D4541-17 on
abrasive blasted mild steel with 75
micron profile 348kg/cm² (4950psi)

Heat Distortion

Tested to ASTM D648 at 264psi fibre
stress:

20°C (68°F) Cure	53°C (127°F)
60°C (140°F) Cure	141°C (285°F)
141°C (285°F) Cure	172°C (341°F)

Thermal Cycling

Tested to NACE TM0304
Pass (no blisters)

Heat Resistance

Full immersion resistance:
Tested water/hydrocarbon
immersion to 130°C (266°F)
Pass (no blisters)

Steam out resistance:
Tested at 220°C (428°F)
100hrs exposure
Pass (no blisters)

Dry heat resistance:

Tested to ASTM D2485
Pass 240°C (464°F)

Impact Resistance

Tested to ASTM D256 32J/m

Explosive Decompression

Tested to NACE TM0185 Pass

Hardness

Shore D to ASTM D2240

20°C (68°F)	82
100°C (212°F)	87
150°C (302°F)	86
200°C (392°F)	82
240°C (464°F)	78

Coverage

1kg (2.2lb) of fully mixed product will
give the following coverage rates

0.918m ² at 500 microns	9.86ft ² at 20mil
0.688m ² at 750 microns	7.41ft ² at 30mil
0.459m ² at 1000 microns	4.93ft ² at 40mil

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

Details & Legal

Chemical Resistance

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

Food Contact

USDA compliant for incidental food contact.

Title 21, Food and Drugs, Chapter I, U.S. Code of Federal Regulations, FDA, Subchapter B – Food for Human Consumption, Section 175.300 (Resinous and Polymeric Coatings).

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 this document.

Pack Sizes

This product is available in the following pack sizes:

1kg (2.2lb)

3kg (6.6lb)

Application Guide

A. Surface Preparation

Metallic Substrates: Mechanical abrasion

- 1 All oil and grease must be removed from the surface using an appropriate cleaner such as MEK.
- 2 All surfaces must be abrasive blasted to ISO 8501/4 Standard SA2.5 (SSPC SP10/ NACE 2) minimum blast profile of 75 microns (3mil) using an angular abrasive.
- 3 Once blast cleaned, the surface must be degreased and cleaned using MEK or similar type material.
- 4 All surfaces must be coated before gingering or oxidation occurs.
- 5 The substrate temperature must be between 10-40°C (50-104°F).

Health & 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.

B. Product Preparation

Prior to mixing, please ensure the following:

- 1 The base component is at a temperature between 15-25°C (60-77°F).
- 2 The surface temperature is between 10-40°C (50-104°F).
- 3 The ambient temperature is between 10-50°C (50-122°F).
- 4 The ambient & surface temperatures are not less than 3°C (6°F) above the dew point.

PLEASE NOTE: For salt contaminated surfaces the substrate must be pressure washed with clean water and checked for salt contamination, please refer to the surface preparation and pre-application guide for further information.

Before mixing and applying the material, please ensure you have read and fully understood all information.

C. Mixing

Once product preparation checks are complete:

- 1 Transfer the contents of the Activator unit into the Base container.
- 2 Using the spatula provided, mix the 2 components until a uniform material free of any streaks is achieved.
- 3 From the commencement of mixing the whole of the material should be used within 35 minutes at 20°C (68°F).
- 4 Ensure the coating is forced into the blast profile.

D. Application

Product application:

- 1 Stripe coat all edges, corners and equipment. Apply the coating at 300–500 microns (12–20mil) WFT using a short bristle brush.
- 2 Allow the stripe coat to cure for 4 hours at 20°C (68°F).
- 3 The first coat of material should be applied at a target thickness of 450–550 microns (18–22mil) using a short bristle brush.
- 4 Ensure the coating is forced into the blast profile.
- 5 Special attention should be paid to detailed areas such as edges, corners and welds where brush application by stippling may be required.
- 6 Allow the 1st coat of material to cure for approximately 4 hours at 20°C (68°F).
- 7 Once the 1st coat has cured hard enough apply a 2nd coat of material at a target thickness of 450–550 microns (18–22mil).

For Optimum Performance After an initial curing period of at least 4 hours at 20°C (68°F), raising the cure temperature progressively to 60–100°C (140–212°F) for up to 8 hours will result in improved mechanical, thermal and chemical resistance properties

Quick Application Guide



Step 1

Ensure you have:

1 x base unit

1 x activator unit

1 x spatula

1 x brush (bristles trimmed to 25mm in length)



Step 2

Pour the contents of the activator tin into the base unit.



Step 3

Mix the two components using the provided spatula, ensuring any unmixed material around the edges is fully incorporated.



Step 4

Ensure the product is fully mixed by checking for any colour differences; the material should have a uniform appearance.



Step 5

Once fully mixed, use the short-bristled brush to apply the coating to the repair surface.

About Resimac

A UK based manufacturer of epoxy and polyurethane coatings and repair materials.

From our head office in the heart of rural North Yorkshire, England we supply our range of Epoxy, Polyurethane & Silicone coatings and repair materials to the Oil & Gas, Petrochemical, Marine, Paper & Pulp, Water, Power Generation & Chemical Industries.

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.

Approvals

Approved by BUREAU VERITAS for Surface Protection and Cold Repair Products applied to Marine Vessels. Certificate No: 55268/B0 BV. Expiry: 1st June 2029.

Information & Enquiries

For more information and technical data please visit our website or contact us.

www.resimacsolutions.com

info@resimac.co.uk

+44 (0) 1845 577498

Resimac Ltd,
Unit B, Park Barn Estate,
Station Road,
Topcliffe,
Thirsk,
North Yorkshire,
YO7 3SE,
United kingdom

