



207 Ceramic XHT Fluid

An epoxy novolac coating designed to protect equipment from erosion and corrosion in high temperature immersion environments.

- Resists high temperature fluid flow environments up to 180°C (356°F)
- Suitable for hydrocarbon and aqueous immersion
- Provides protection against erosion and corrosion
- High resistance to abrasion and wear

2025 Product Sheet



Typical Applications

207 Ceramic XHT Fluid is a solvent free epoxy novolac coating designed to protect equipment exposed to water, pressurised steam, and aqueous/hydrocarbon mixtures at elevated temperatures. Once fully cured, the coating provides reliable protection in continuous immersion environments such as water, saltwater, and hydrocarbon mixtures, withstanding temperatures up to 180°C (356°F). It offers long term protection against erosion, corrosion, and thermal cycling.

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

Cure times

Allow the applied material to harden for the specified time before exposing to the indicated conditions:

Usable Life		Min overcoating time		Max overcoating time		Full Cure
10°C/50°F	120 mins	10°C/50°F	6 hours	10°C/50°F	24 hours	Requires post curing at a minimum of 60°C (140°F) to achieve full mechanical properties.
20°C/68°F	90 mins	20°C/68°F	3 hours	20°C/68°F	24 hours	
30°C/86°F	45 mins	30°C/86°F	2 hours	30°C/86°F	18 hours	
40°C/104°F	20 mins	40°C/104°F	1 hour	40°C/104°F	8 hours	

Characteristics

Appearance		Density	
Base	Grey paste	Base	1.45
Activator	Amber liquid	Activator	0.99
Mixed	Grey viscous liquid	Mixed	1.34
Solids Content		Mixing Ratio	
100%		By weight	4.8:1
		By volume	3.3:1
Volume Capacity		Storage Life	
746cc/kg		3 years if unopened and stored in normal dry conditions, 15–30°C (59–86°F)	
Sag Resistance			
Nil at 350 microns			

Coverage

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

2.48m² at 300 microns 26.7ft² at 6mil

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

Mechanical Properties

Abrasion Resistance

Taber Abrasion after 100°C (212°F)
cure CS17 Wheels/1kg load 15mm³
20mg loss/1000 cycles

Compressive Strength

Tested to ASTM D695 after cure at
100°C (212°F):

Compressive strength

113.5MPa (16,462psi)

Compressive modulus

1303MPa (1.89 x 10⁵ psi)

Flexural Strength

Tested to ASTM D790 after cure
100°C (212°F):

Flexural strength

71.65MPa (10,392psi)

Flexural Modulus

5295MPa (7.82 x 10⁵ psi)

Impact Resistance

Tested to ASTM D256 after cure at
100°C (212°F)

Notched: 3.3kJ/m²

Reverse notched: 8.64 kJ/m²

Adhesion

Tensile Shear to ASTM D1002 on
abrasive blasted mild steel with 75
micron profile after 100°C (212°F)

cure:

12.76 MPa (1,851psi)

Heat Distortion

Tested to ASTM D648 at 264psi fibre
stress:

100°C (212°F)

161°C (321°F)

160°C (320°F)

267°C (512°F)

Hardness

Shore D to ASTM D2240

20°C (68°F) 83

100°C (212°F) 84

180°C (356°F) 83

Heat Resistance (autoclave test)

Water/Carbon Dioxide immersion
to 180°C (356°F): Pass (no blisters
or cracking) after 3 months

Steam out resistance:

220°C(428°F) for 100hrs

Pass (no blisters or cracking)

Tensile Strength

To ASTM D638 after cure at 100°C
(212°F):

Tensile strength:

28.94MPa (4,197psi)

Tensile modulus:

3,133MPa (4.54 x 10⁵ psi)

Elongation at break 1.34%

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.

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 (2.2lbs)

3kg (6.6lbs)

Application Guide

A. Surface Preparation

Metallic Substrates: Abrasive blast cleaning

- 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.

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 elevated temperature applications it is essential that any salt contamination at the surface of the substrate is less than 20mg/cm² immediately prior to application of 207 Ceramic XHT Fluid.

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.

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 approximately one third of the contents of the Activator unit into the Base container and mix until incorporated using the spatula provided.
- 2 Add the remainder of the Activator and mix 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 90 minutes at 20°C (68°F).

D. Application

Product application:

- 1 Stripe coat all edges, corners and equipment. Apply the coating at 200 microns (8mil) WFT using a short bristle brush.
- 2 Allow the stripe coat to cure for 3 hours at 20°C (68°F).
- 3 The first coat of material should be applied at a target thickness of 250–300 microns (10–12mil) 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 Once the 1st coat has cured to a dimensionally stable state apply a 2nd coat of material at a target thickness of 250–300 microns (10–12mil).
- 7 Under no circumstances exceed the maximum overcoating times (see below) or apply in excess of 1000 microns (40mil) including stripe coat.

Overcoating times: *Minimum:* The applied material can be overcoated once it is touch dry. *Maximum:* The overcoating time should not exceed 24 hours at 20°C (68°F). If the maximum over coating time is exceeded, the material must be allowed to harden before abrading or flash blasting.

Quick Application Guide



Step 1

Ensure you have:

- 1 x base unit
- 1 x activator unit
- 1 x spatula
- 1 x brush
- 1 x wft gauge



Step 2

Open the activator tin and pour contents into the base unit.



Step 3

Mix the two components using the spatula provided, ensure any unmixed material around the edges is mixed.



Step 4

To ensure the product is fully mixed check the material for any colour difference. The mixed material should be a consistent mix.



Step 5

Once the material is fully mixed use a brush to apply the coating to the repair surface. Care must be taken to ensure wet film thickness does not exceed 300 microns.

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

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