resimac Ltd.

Technical Data Sheet

USI

RESIMETAL 205 Ceramic HT Fluid –

solvent free epoxy novolac coating for high temperature immersion

Resimac 205 Ceramic HT Fluid is designed to upgrade the performance of conventional materials of construction and in particular to protect equipment operating in contact with water and aqueous/ hydrocarbon mixtures against erosion/corrosion at elevated temperatures. The coating once fully cured is capable of withstanding temperatures up to 265°F in continuous immersion in water, salt water and crude Oil (these temperatures are dependent on operating environment).

- Apply to abrasive blast cleaned surfaces
- High mechanical adhesion to metal substrates
- Resists 265°F chemical immersion temperatures

Typical Applications

condensate extraction pumps	return tanks	calorifiers
distillation units	evaporators	heat exchangers
scrubber units	filters	process vessels

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.

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.*

Mixing

Prior to mixing please ensure the following:

1. The base component is at a temperature between 60-77°F.
2. The ambient & surface temperature is above 50°F.
3. The ambient & surface temperatures are not less than 6°F above the dew point.

Once these 3 checks have been met, please proceed with mixing the product.

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 68°F.

Application

1. Stripe coat all edges, corners and equipment. Apply the coating at 12-20mil WFT using a short bristle brush.
2. Allow the stripe coat to cure for 4 hours at 68°F.
3. The first coat of material should be applied at a target thickness of 20mil 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 68°F.
7. Once the 1st coat has cured hard enough apply a 2nd coat of material at a target thickness of 20mil.

Coverage Rates

1kg (2.2lb) of fully mixed product will give the following coverage rates –
9.87ft² 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.

Cure Times

At 68F° the applied materials should be allowed to harden for the times indicated below before being subjected to the conditions indicated. These times will be extended at lower temperatures and reduced at higher temperatures:

Usable Life	35mins
Minimum overcoating time Maximum	4 hours
overcoating time	24 hours
Full cure	3 days

For Optimum Performance

After an initial curing period of at least 4 hours at 68F°, raising the cure temperature progressively to 140-212F° for up to 8 hours will result in improved mechanical, thermal and chemical resistance properties

Pack Sizes

This product is available in the following pack sizes –
1kg (2.2lb), 3kg (6.6lb)

Color

Mixed material - Dark Grey, Light Grey
Base component – Dark Grey, Light Grey
Activator component – Amber liquid

Over-coating times

Minimum - the applied material can be over-coated as soon as it is touch dry.
Maximum - the over-coating time should not exceed 24 hours at 68F°.
Where the maximum over-coating time is exceeded, the material should be allowed to harden before being abraded or flash blasted to remove surface contamination.

Storage Life

5 years if unopened and store in normal dry conditions (60-86°F)

Other Technical Documents

Quick Application Guide	-	Hand application
Safety Data Sheets	-	Base & Activator components
Product Specification Sheet	-	Technical Performance Information

Health and Safety

Please ensure good practice is observed at all times. Protective gloves, goggles & a disposable coverall must be worn during the mixing and application of this product. Before mixing and applying the material ensure you have read the fully detailed Safety Data Sheet.

Legal Notice: