

## HPR-517-HTC – solvent free epoxy novolac coating for high temperature immersion

HPR-517-HTC 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 130°C (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 130°C 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 15-25°C (60-77°F).
2. The ambient & surface temperature is above 10°C (50°F).
3. The ambient & surface temperatures are not less than 3°C (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 30 minutes at 20°C (68°F).

### 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 500 microns (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 1<sup>st</sup> coat of material to cure for approximately 4 hours at 20°C (68°F).
7. Once the 1<sup>st</sup> coat has cured hard enough apply a 2<sup>nd</sup> coat of material at a target thickness of 500 microns (20mil).

### Coverage Rates

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

0.918m<sup>2</sup> at 500 microns                      9.87ft<sup>2</sup> 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 20°C (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	30mins
Minimum overcoating time	4 hours
Maximum overcoating time	12 hours
Full cure	3 days

## For Optimum Performance

After an initial curing period of at least 4 hours at 20°C (68F°), raising the cure temperature progressively to 60 - 100°C (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)

## Colour

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 12 hours at 20°C (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 (15-30°C/ 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:

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 if the product is suitable for use. PJPC accepts no liability arising out of the use of this information or the product described herein.