

## HPR-512-C

**HPR-512-C** is an erosion-corrosion resistant coating for use principally in fluid flow situations. The material can be applied directly to abrasive blasted steel or to surfaces previously rebuilt with HPR-503-M or HPR-515-C.

### Typical applications

Suitable for the coating of equipment such as -

impellers & pump casings  
water boxes  
propellers

valves  
separator housings  
kort nozzles

heat exchanger end plates  
pipes  
rudders

### Surface Preparation

All oil and grease must be removed from the surface of the repair using an appropriate cleaner such as MEK.

For optimum performance, the surface should be abrasive blasted to **ISO 8501/4 Standard SA2.5 (SSPC SP10/ NACE 2)** and a minimum blast profile of 75 microns using an angular abrasive. Once blast cleaned, the surface must be degreased and cleaned using MEK or similar type material. All surfaces must be repaired before gingering or oxidation occurs.

PLEASE NOTE: For salt contaminated surfaces the area must be abrasive blast cleaned as mentioned above and left for 24 hours to allow any ingrained salts to come to the surface. After this 24 hour period the surface must be washed with MEK prior to brush blasting to remove the surface salts. This process must be repeated until all ingrained contaminants have been sweated out of the surface.

On surfaces already rebuilt with HPR-503-M or HPR-515-C no further surface preparation is required where over-coating takes place within 3 hours. After this maximum over-coating time has elapsed roughen the surface by flash blasting or other means of abrasion.

### Mixing and Application

***Warm the Base component to 15-25°C (60-77°F) before mixing and do not apply when the ambient or substrate temperature is below 5°C (40°F) or less than 3°C (37°F) above the dew point***

Mixing of the product can be on full units or by part-mixing.

If mixing the whole unit, pour the contents of the Activator unit into the Base container ensuring that as much material is drained from the Activator container as possible. Mix the two components together until they are streak-free using a spatula and apply using a short bristled brush or applicator tool.

The product should be applied at a target wet film thickness of 250-350 (10-14mil) microns per coat. The product must be applied to any metallic surface in two coats to give a minimum dry film thickness of 500 microns (20mil). From the commencement of mixing the material should be used within 20-30 minutes at 20°C (68°F).

As soon as possible after application of the first layer, and after no longer than 6 hours, apply a further coat as above. If the maximum over-coating time is exceeded, the first layer should be brush blasted or abraded before applying the second coat.

For part mixing use a mixing ratio of 8:1 by weight or 3:1 by volume.

# Technical Data Sheet

## Coverage Rates

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

1.784m <sup>2</sup> at 250 microns	17.5ft <sup>2</sup> at 10mil
1.485m <sup>2</sup> at 300 microns	16ft <sup>2</sup> at 12mil
1.271m <sup>2</sup> at 350 microns	13.55ft <sup>2</sup> at 14mil

*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 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	20 - 30 minutes
Movement without load or immersion	3 hours
Light loading	6 hours
Full loading	1.5 days
Immersion	2 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), 27kg (59.5lb)

## Colour

Mixed material - Dark Grey, Light Grey, Red, Light Blue  
Base component – Dark grey, Light Grey, Red, Light Blue  
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 6 hours.

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/ 60-86F°)

## Technical Data and Performance

# Technical Data Sheet

Volume Capacity	446cc/Kg
Compressive Strength ASTM D695	960kg/cm <sup>2</sup> (13,650psi)
Tensile Shear Adhesion(mild steel) ASTM D1002	202kg/cm <sup>2</sup> (2875psi)
Flexural Strength ASTM D790	635kg/cm <sup>2</sup> (9000psi)
Hardness (Rockwell R) ASTM D785	100
Corrosion Resistance (ASTM B117)	5000 hours

Please see HPR-512-C Product Specification Sheet for further technical and performance data.

#### Health and 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 the detailed Material 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 the products suitability for use. PJPC Limited accepts no liability arising out of the use of this information or the product described herein.