

HPR-501-MXF

HPR-501-MXF is a fast curing two component solvent free epoxy metal repair compound. The product has been designed for use on a wide range of metallic surfaces and once cured is readily machine able.

Typical Applications

Suitable for emergency repairs or part of planned maintenance to equipment such as –

damaged pump shafts

cracked pump or valve casings

damaged flanges

leaking tank seams

cracked engine blocks

underwater surfaces

underwater hulls

underwater structures

Surface Preparation

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

Ideal surface preparation for this material is abrasive blast cleaning to ISO 8501/4 Standard SA2.5 (SSPC SP10/ NACE 2) and with a minimum blast profile of 75 microns using an angular abrasive.

However this product has been designed for surfaces with less than ideal surface preparation –

Hand tools, use a wire brush or coarse sand paper to abrade the surface.

Mechanical tools, use a handheld mechanical grinder with a coarse grinding pad or rotary wire brush. DO NOT POLISH THE SURFACE, ENSURE THAT THE SURFACE HAS A CROSS HATCH PATTERN.

MBX bristle blaster, for the best mechanical surface preparation results use an MBX bristle blaster.

Ensure all loose material and as much surface contamination is cleaned from the surface. Ensure the surface is wiped with an appropriate solvent cleaner such as MEK after abrading the surface.

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.

In areas where the product should not adhere a thin layer of a suitable release agent should be applied taking care not to contaminate other areas.

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 please ensure as much of the base and activator is dispensed from the plastic container onto a clean plastic mixing surface and mix using a spatula until a uniform material free of any streakiness is achieved while ensuring no unmixed material is left on the spatula or the mixing surface. From the commencement of mixing the whole of the material should be used within 5 minutes at 20°C (68°F).

For part mixing, using a spatula place equal measures from the base unit onto a clean plastic mixing surface. Clean the spatula thoroughly and then take one equal measure from the Activator unit and place alongside the base measures. Mix as above.

Technical Data Sheet

Using a spatula or applicator tool, apply the material to the prepared surface, ensuring the product is pressed into any holes, scars or cracks and profile the repair to a smooth finish.

Coverage Rates

500gm (1.1lb) of fully mixed product will give the following coverage rates –

0.222m ² at 1mm	2.4ft ² at 40mil
0.111m ² at 2mm	1.2ft ² at 80mil
0.074m ² at 3mm	0.8ft ² at 1/8"

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	5mins
Movement without load or immersion	45mins
Machining and light loading	90mins
Full loading	4 hours
Immersion	8 hours

Pack Sizes

This product is available in the following pack sizes –
200gm (0.4lb), 500gm (1.1lb)

Colour

Mixed material - Light Grey
Base component – Black
Activator component – White

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 4 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	444cc/Kg
Compressive Strength ASTM D695	14-18 N/mm ²
Shear Strength DIN 53283	185kg/cm ² (2630psi)
Hardness Rockwell R ASTM D785	78-80
Peel Strength ISO 4578	3-5

Please see HPR-501-MXF 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 must be worn during the mixing and application of this product. Before mixing and applying the material please ensure you have read the fully 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 LTD accepts no liability arising out of the use of this information or the product described herein.