

## PES 104 Power Metal Fluid XF

**PES 104 Power Metal Fluid XF** is a fast curing two component solvent free epoxy metal repair fluid. The product has been designed for use on a wide range of metallic surfaces and once cured is readily machinable.

### Typical Applications

Suitable for emergency repairs or part of planned maintenance to equipment such as damaged flanges, leaking tank seams.

### 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 SSPC SP10 and a minimum blast profile of 3-4 mils 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 occur.

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.

If abrasive blast cleaning is not practical the product is tolerant of manually prepared surfaces such as mechanical wire brush or grinding, needle gun, MBX bristle blaster. However the long term performance of the material will be affected by poor surface preparation.

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

***Do not apply when the ambient or substrate temperature is below 41°F or the relative humidity is above 90%.***

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 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.

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

# Technical Data Sheet



## Cure Times

At 68°F 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	2 hours
Full loading	8 hours
Immersion	8 hours

## 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 3 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

12 months if unopened and store in normal dry conditions (59-86°F)

## Technical data and Performance

<b>Volume Capacity</b>	<b>33.8cu.in./Kg (555cc/Kg)</b>
<b>Compressive Strength ASTM D695</b>	<b>2556PSI (180Kg/cm<sup>2</sup>)</b>
<b>Shear Strength DIN 53283</b>	<b>2630psi (185kg/cm<sup>2</sup>)</b>
<b>Lap Shear Strength ISO 4587</b>	<b>Steel 3550 PSI (25 N/mm<sup>2</sup>) Aluminium 2130 PSI (15 N/mm<sup>2</sup>)</b>
<b>Hardness Rockwell R ASTM D785</b>	<b>78-80</b>
<b>Peel Strength ISO 4578</b>	<b>426-710 PSI</b>

## 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. PES accepts no liability arising out of the use of this information or the product described herein.