DEP 107 XL Metal

DEP 107 XL Metal is a two component solvent free epoxy metal repair compound. The product has an extended working life and has been designed for use in hot climates or in situations where the complexity of an application requires a longer working time. The material can be applied to a wide range of metallic surfaces and once cured is readily machinable.

The material is suitable for emergency repairs or part of planned maintenance to equipment such as worn or damaged pump shafts, cracked pump or valve casings, scored hydraulic rams, worn bearing housings, damaged flanges, leaking tank seams, worn keyways and cracked engine blocks. The long working life of the material also makes it ideal for complex shimming operations.

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 Swedish Standard SA2.5 and a minimum blast profile of 75 microns using an angular abrasive. Once blast cleaned, the surface must be degreased and cleaned using MEK and all prepared surfaces must be repaired before rusting or oxidation occur.

NOTE: For salt contaminated surfaces the area must be repeatedly water washed, preferably by power washing, until ingrained salts no longer come to the surface on drying. The surface should then be abrasive blast cleaned as above prior to cleaning and degreasing with MEK.

In the case of cracked surfaces, the cracks should be stabilised by drilling the termination points and the cracks veed out and drilled, tapped and bolted every 75-100 mm.

Where abrasive blast cleaning is not possible the surface should be roughened by bristle blaster, needle gun or grinding. Under these conditions adhesion levels will not be optimal although still satisfactory for most applications.

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 to 15-25°C before mixing and do not apply when the ambient or substrate temperature is less than 5°C or less than 3 degrees 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 60 minutes at 20°C.

For part mixing, using a spatula place 3 equal measures from the base unit onto a clean plastic mixing surface. Clean the spatula thoroughly and then take two equal measures from the Activator unit and place alongside the base measures. Mix as above.

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.

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Where a machined finish is required, the repair area should be overfilled by up to 1.5mm and once hardened machined using a surface cutting speed of 200ft/minute and a feed rate of 50 thou/rev initially and 10 thou/rev for finishing.

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	60 minutes
Movement without load or immersion	5 hours
Machining and light loading	12hours
Full loading	4 days
Immersion/chemical contact	7 days

For Optimum Performance

After an initial curing period of at least 8 hours at 20°C, raising the cure temperature progressively to 60 - 100°C for up to 8 hours will result in improved mechanical, thermal and chemical resistance properties

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.
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)

Technical data and Performance

Volume Capacity	388cc/Kg
Compressive Strength ASTM D695	839kg/ cm² (11,900psi)
Tensile Shear Adhesion ASTM D1002	180kg/cm² (2550 psi)
Flexural Strength ASTM D790	585kg/cm² 8300psi
Hardness Shore D ASTM D2240	87

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.

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