# **DEP**

# **Technical Data Sheet**

## **DEP 208 Ceramic UW Fluid**

**DEP 208 Ceramic UW Fluid** is a flexibilised high build solvent-free epoxy coating designed for application to wet surfaces or even underwater. The ceramic enhanced product provides outstanding adhesion to wet surfaces and long term protection of steel and concrete structures against corrosion, abrasion and chemical attack. The material will cure down to 5°C and is highly resistant to marine and industrial environments, buried conditions, ground water, effluents, salt water and a wide range of oils and chemicals.

## **Typical applications**

Subsea structures, pipelines, risers, slash zones, sheet and bearing piles and other land and marine structures.

## **Surface Preparation**

#### 1. Metallic Substrates

Where practical, all oil and grease must be removed from the surface to be coated using an appropriate cleaner.

The product is tolerant of less than ideally prepared surfaces although for optimum results, the surface should be abrasive blasted to Swedish Standard SA2.5 and a minimum blast profile of 75 microns using an angular abrasive.

Where abrasive blast cleaning is not possible the surface should be roughened by MBX, needle gun or grinding. Under these conditions adhesion levels will not be optimal although still satisfactory for most applications. For underwater applications, high pressure water jetting is recommended.

#### 2. Concrete

Remove any contamination and lightly abrasive blast or scarify taking care not to expose the aggregate before application of DEP 208. Allow new concrete to cure for a minimum of 21 days and likewise treat to remove any surface laitance before coating.

## Mixing and Application

Warm the Base 15-25°C before mixing and do not apply when the ambient or substrate temperature is less than 5°C

Transfer the contents of the Activator unit into the Base container and mix thoroughly until a uniform material free of any steaks is achieved. From the commencement of mixing the whole of the material should be used within 45 minutes at 20°C. For small volume mixes, the mixing ratio is 6.75:1 by weight or 4:1 by volume.

DEP 208 has been specifically designed for application to wet surfaces or underwater. When applying to dry or wet surfaces it can be applied in two coats at a minimum of 250 microns per coat but when applying underwater it should be applied in a single coat at a minimum thickness of 500 microns. All sharp edges and welds, etc., should first be stripe coated and subsequent coating carried out wet on wet.

When applying to wet surfaces the material should initially be either stippled into the surface using a short bristled brush or forced into the surface by applicator tool. More material can then be applied to build up to the required thickness.

Special techniques have been designed for applying DEP 208 underwater and it is suggested that contact is made with DEP's Technical Service Department for advice before proceeding to achieve the best results.

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## **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 45 minutes
Movement without load or immersion 6 hours
Light loading 18 hours
Full loading 4 days
Chemical Contact 7 days

Note: The performance of the product is not adversely effected by underwater application and cure but the surface of the material will be matt rather than glossy in appearance.

#### **Technical Data and Performance**

Tensile Shear Adhesion(mild steel - dry) ASTM D1002	186 kg/ cm² (2640 psi)
Tensile Shear Adhesion(mild steel - wet) ASTM D1002	174 kg/ cm² (2470psi)
Hardness Shore D ASTM D2240	75
Corrosion Resistance (ASTM B117)	Minimum 1000 hours

## **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.

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. DE Polymers Limited accepts no liability arising out of the use of this information or the product described herein.

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