209 EIP PU (Extreme Impact Protection Polyurethane)

209 EIP PU is a high build solvent free urethane extreme impact and abrasion resistant coating designed for the protection of pumps, valves, pipes, chutes, hoppers, vessels, tanks and associated equipment.

Typical applications

Pipelines **Agitators** **effluent systems** **pumps & valves** **Vessels** **Tanks**

Surface Preparation

1. Metallic Substrates

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 (3mil) using an angular abrasive. Once blast cleaned, the surface must be degreased and cleaned using MEK or similar type material. All surfaces must be coated 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.

Where abrasive blast cleaning is not possible (excluding salt contaminated surfaces) 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.

2. Concrete

Remove any contamination and lightly abrasive blast or scarify taking care not to expose the aggregate before application of 209 EIP PU. Allow new concrete to cure for a minimum of 21 days and likewise treat to remove any surface laitance before coating. For optimum results on damp concrete, condition with Resichem 505 Dampseal. Where the concrete is dry but highly porous, it is recommended to condition with Resichem 503 SPEP.

Mixing and Application

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

Manual Application (Brush or Roller)

Transfer the contents of the Activator container into the Base unit mixing thoroughly to ensure that the material is homogeneous and free of any streaks. From the commencement of mixing all of the material should be used within 15-20 minutes at 20°C (68°F). Where more time is required, the material should be cooled before mixing and during use or smaller volume mixes used. Typically the material is applied at a target wet film thickness of 750-1000 microns (30-40mil).

Coverage Rates

1ltr (0.25 US gallon) of fully mixed product will give the following coverage rate –
2m² at 500 microns 21.5ft² at 30mil

4ltr (1 US gallon) of fully mixed product will give the following coverage rate –
13.32m² at 300 microns 143ft² at 30mil

Please note that the coverage rates quoted are theoretical and do not take into consideration the profile or condition of the surface being repaired.

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Technical Data Sheet

Cure Times

At 20**℃** 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	15 - 20 minutes
Movement without load or immersion	2 hours
Light loading	4 hours
Full loading/water immersion	3 days
Chemical Contact	7 days

Pack Sizes

This product is available in the following pack sizes –
1ltr (0.25 US gallon)
4ltr (1 US gallon)

Colour

Mixed material – Mid Grey, Light Blue
Base component – Mid Grey, Light Blue
Activator component – Amber

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

2 years if unopened and store in normal dry conditions (15-30°C/ 60-86F°)

Technical Data and Performance

Tensile Strength (25°C) ASTM D1002	**200 kg/ cm² (2850 psi)**
Elongation at Break (25°C)	**30%**
Hardness Shore D ASTM D2240	**80**
Corrosion Resistance (ASTM B117)	**5000 hours**

Please see 209 EIP PU 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.

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