



# 209 EIP PU

Brush or Spray Applied Impact Protection Polyurethane Coating

---

## Introduction to 209 EIP PU

**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, structural steel and associated equipment.

The coating is based on the latest polyurethane resin technology which once cured leaves a flexible but highly durable finish to concrete and metallic surfaces,

### Key Markets for this material—

**Mining**

**Power**

**Marine**

**Water**

**Paper & Pulp**



## Surface Preparation for 209 EIP PU

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

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.

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.

On surfaces already rebuilt with Resimac 101 Metal Repair Paste or 107 Metal Repair Paste XL no further surface preparation is required where over-coating takes place within 3 hours.

## Application

### Spray

The product can be applied in a single coat at 1500 microns using a Graco Extreme XM heated plural feed spray rig.

### Brush or Roller

The product can be applied in multiple coats using a brush or medium pile roller. Typical wet film thickness of 300-400 microns per coat.

***The total dry film thickness required will depend on the operating environment of the coating.***

***For fine media or solids a total dry film thickness in excess of 1mm is required.***

***For aggregates and minerals a total dry film thickness in excess of 2mm is required.***

## Coverage Rates

1ltr of fully mixed product will give the following coverage rates –

1m<sup>2</sup> at 1mm WFT

0.5m<sup>2</sup> at 2mm WFT

## Technical Specifications

Abrasion Resistance	Taber H10 Wheels/ 1kg load wet	0.14cc loss / 1000 cycles
Tensile Shear Adhesion	ASTM D1002 Blast cleaned steel with 75 micron profile	200kg/ cm <sup>2</sup> (2850psi)
Compressive Strength	ASTM D695	476kg/ cm <sup>2</sup> (6750psi)
Corrosion Resistance	ASTM B117	Minimum 5000hrs
Impact Resistance	BS EN 10290	23°C 8.6 joules
Hardness Shore D	ASTM D2240	20°C 80
Adhesion Pull off Test	BS EN 10290 ASTM D4541	175kg/ cm <sup>2</sup> (2480psi) 214kg/ cm <sup>2</sup> (3030psi)
Adhesion Resistance to Removal	BS EN 10290	23°C Rating 1
Elongation	BS EN 10290	14.5%
Heat Resistance		Dry Heat 120°C Water Immersion 70°C Chemical Immersion 35°C
Sag Resistance		<b>Brush Application</b> 500 microns <b>Spray Application</b> 1500 microns

# Global Projects

---

## Aggregate Chutes —Germany

### PROJECT

---

An aggregate bagging operation required an impact protection coating for the chutes based on the site.

The abrasion in the bagging process had eroded the original coating system and the steel surfaces of the chute had become badly damaged.



### Reason for choosing 209 EIP PU

---

Impact protection finish due to the flexibility of the cured coating

The coating is capable of withstanding high impact from heavy aggregates

Can be applied in a single coat by spray application at 1.5mm WFT

### Application Details

---

All surfaces were abrasive blast cleaned to SA2.5 surface cleanliness

All surfaces were then degreased

209 EIP PU was applied by spray in a single coat at 1.5mm wet film thickness

The coating allowed to cure for 48 hours before being placed back into operation



# Global Projects

---

## Bio-Digester Doors—United Kingdom



### PROJECT

---

Bio Digester plant based in the North Of England required a chemically resistant impact protection coating. The plant processes 650 tonnes of household waste per day.

The waste process doors were being eroded by impact and corroded from the chemicals produced by the composting process.



### Reason for choosing 209 EIP PU

---

Impact protection finish due to the flexibility of the cured coating

Chemically resistant to the chemicals used in the composting process

Can be applied in a single coat by spray application at 1.5mm WFT

### Application Details

---

All surfaces were abrasive blast cleaned to SA2.5 surface cleanliness

All surfaces were then degreased

209 EIP PU was applied by spray in a single coat at 1.5mm wet film thickness

The coating allowed to cure for 48 hours before being placed back into operation



# Product Description & Characteristics



## Product Description

2 component solvent free polyurethane coating

High build

100% solids

Designed to protect existing metallic & concrete surfaces

## Product Characteristics

<b>Base density (gm per cm<sup>3</sup>)</b>	<b>1.31</b>
<b>Activator density (gm per cm<sup>3</sup>)</b>	<b>1.22</b>
<b>Mixed product density (gm per cm<sup>3</sup>)</b>	<b>1.29</b>
<b>Dry heat resistance (°C)</b>	<b>120</b>
<b>Intermittent wet heat resistance (°C)</b>	<b>80</b>
<b>Immersion temperature resistance (°C)</b>	<b>60</b>
<b>Mixing ratio by volume</b>	<b>3:1</b>
<b>Mixing ratio by weight</b>	<b>3.25:1</b>

## Product Cure times

	20°C			30°C			40°C		
	Pot life	Touch dry	Immersion	Pot life	Touch dry	Immersion	Pot life	Touch dry	Immersion
<b>209</b>	20mins	4hrs	3 days	10mins	2hrs	1.5 days	5mins	60mins	18hrs

# Resimac Technical Support and Expertise

---



Formed in 2009 and based in the North of England, Resimac manufactures a wide range of solvent free epoxy and polyurethane coatings and engineering materials for the Marine, Chemical, Water, Power, Oil and Gas Industries.



We are able to offer expert technical advice onsite or online 24 hours a day, 7 days a week in over 45 countries worldwide.



Contact us direct by email, telephone or by visiting our website.

Web: [www.resimacsolutions.com](http://www.resimacsolutions.com)

Tel: +44 (0) 1845 577498

Email: [info@resimac.co.uk](mailto:info@resimac.co.uk)



With over 50 contractors worldwide we are able to offer fast and effective solutions in many of the worlds major industrial areas.

**Abrasion & Wear Protection**

**Chemical Protection**

**Corrosion Protection**

**High Temperature Protection**

**Impact Protection**

**Metal Repair**

**Pipe Repair and Pipe Wrapping**

**Thermal Protection**

**Underwater Repair & Protection**

**Resimac Limited**  
**Unit B, Park Barn Estate**  
**Station Road, Topcliffe**  
**Thirsk, North Yorkshire**  
**YO7 3SE**  
**UNITED KINGDOM**

**Tel: +44 (0) 1845 577498**

**Email: [info@resimac.co.uk](mailto:info@resimac.co.uk)**

**Web: [www.resimacsolutions.com](http://www.resimacsolutions.com)**

---