



# Anti-Slip Floor Coatings

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# Introduction to Resimac Anti-Slip Floor Coatings

Resimac anti-slip flooring systems have been used in the marine, chemical process, power and petrochemical industries and are able to solve slip issues in chemical and wet environments.

Our anti-slip coatings have been used to ensure a safe working environment on thousands of square metres of marine decks and factory floors and are proven to offer outstanding durability from foot, fork lift and heavy construction traffic.

The coating systems are easy to apply and are based on the latest solvent free epoxy and polyurethane coating technology

**Factory floors**

**Mezzanine floors**

**Car decks**

**Marine decks**

**Ramps**

**Stairways**

**Walkways**

**Warehouses**

**Laboratories**



# Resimac Anti-Slip Floor Coating Range

## 104 Metal Repair Fluid XF

Fast curing solvent free epoxy fluid for coating manually prepared oily surfaces	Apply to manually prepared surfaces by applicator tool  Incorporate bauxite aggregate into the surface for an anti slip finish	Ideal for metallic stair nosings where mechanical or abrasive blast cleaning is not possible	Usable life 5 mins Touch Dry 30 mins Hard Dry 2 hours	Light grey
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## Resichem 507 DWPU

High build flexible solvent free polyurethane coating	Apply to mechanically or abrasive blast cleaned surfaces at 2mm wet film thickness  Incorporate a 3mm bauxite or flint aggregate to obtain a hard wearing, flexible anti slip finish	Ideal for metallic surfaces such as marine decks and steel mezzanine floors  Resistant to diesel, Petrol and most hydrocarbons	Usable life 20 mins Touch Dry 2 hours Hard Dry 8 hours	Light grey
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## Resichem 511 UCEN

High build solvent free epoxy novolac coating with excellent chemical resistance	Apply to abrasive blast cleaned metallic surfaces  Apply to primed concrete surfaces  Incorporate a 2mm bauxite aggregate to create a chemical resistant anti-slip finish to industrial floors	Ideal for chemical processing floors  Once cured the coating will resist 98% sulphuric acid, 75% phosphoric acid, 36% Hydrochloric acid	Usable life 25 mins Touch Dry 6 hours Hard Dry 12 hours	Dark grey or Red
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## Resichem 590 Epoxy FC

High build solvent free epoxy floor coating with a gloss finish	Apply by roller to primed concrete surfaces  Incorporate a 1mm clear quartz aggregate into the base coat  Encapsulate the anti-slip finish with a 2nd coat of material	Ideal for large industrial floor spaces where an anti slip finish is required.  Excellent chemical resistance to mild aqueous chemicals such as 20% sulphuric acid	Usable life 60 mins Touch Dry 5 hours Hard Dry 18 hours	Available in a wide range of colours
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## Resichem 592 Epoxy DF

Decorative flooring system using a solvent free epoxy base coat, coloured quartz aggregate and a light stable sealer finish	Apply the base coat resin and broadcast coloured quartz aggregate into the surface  Seal with a clear epoxy resin coating to give a decorative anti-slip finish to the floor surface	Ideal for kitchen floors, balconies or surfaces requiring a colourful decorative finish	Usable life 25 mins Touch Dry 4 hours Hard Dry 8 hours	Available in a wide range of colours
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# Metal Surfaces

*stairs, stair nosings, ramps*

<b>Surface Preparation</b>	<b>Solvent Only</b> SSPC-SP-1	<b>Manual</b> ISO 8501/4 ST2 SSPC-SP-S-2
<b>Durability</b>	<b>Solvent Only</b> Foot traffic	<b>Manual</b> Foot traffic
<b>Design Life</b>	<b>Solvent Only</b> 12-18months	<b>Manual</b> 2 years +

- Solvent free epoxy system
- Flexible once cured
- Fast curing—walk on in 2 hours
- 3mm + film thickness
- Simple and easy to apply
- Proven system for marine, chemical, Petrochem Industries
- Ideal for small applications in non spark areas
- Good chemical resistance to diesel, oil and mild aqueous industrial chemicals



*Stair nosings in an oil refinery could only be manually abraded. The metal surface had ingrained oils and grease and were wiped down with solvent.*

*104 Metal Repair fluid XF was applied by applicator tool and covered with 3mm bauxite aggregate.*

*The anti slip coating was fully cured with 2 hours.*

*Over 1000 stairs and stair nosings were coated with the 104 Metal Repair Fluid XF anti-slip system*



## Product recommended for this type of application....

**104 Metal Repair Fluid XF** is a two component solvent free fast curing epoxy repair fluid. The product has been designed to be applied to manually prepared oily surfaces.

## Metal Surfaces

*marine decks and steel mezzanine floors*

<b>Surface Preparation</b>	<b>Mechanical</b> ISO8501/4 ST3 SSPC-SP-2	<b>Abrasive clean</b> ISO 8501/4 SA2.5 SSPC-SP-S-10
<b>Durability</b>	<b>Mechanical</b> 45 ton vehicles	<b>Abrasive clean</b> 65 ton metal tracked vehicles
<b>Design Life</b>	<b>5 years</b>	<b>7 years+</b>

- **Solvent free polyurethane system**
- **Flexible once cured**
- **Ready for heavy traffic within 72hours (20°C)**
- **3mm + film thickness**
- **Simple and easy to apply**
- **Proven system for marine, chemical, manufacturing and power generation industries**
- **Ideal for large surface areas in demanding industrial & marine environments**
- **Chemically resistant to diesel, petrol, oil & grease**



*Resichem 507 DWPU was chosen as a ferry deck anti-slip coating system. Surfaces were mechanically abraded and degreased to remove all surface contaminants.*

*507DWPU was applied at a wet film thickness of 2mm and fully blinded with 3mm coarse bauxite aggregate.*

*The coating system has been used on 1000's of square metres of marine decks and steel mezzanine floors.*

## Product recommended for this type of application....

**507 DWPU** is a two component solvent free polyurethane coating that has been designed to be applied to steel decks and floor surfaces. The coating once cured offers a tough, durable and flexible finish capable of dealing with high volume heavy vehicle traffic.

# Concrete Surfaces

*factories, light industrial, warehouses*

<b>Surface Preparation</b>	<b>Mechanical</b> SSPC-SP-13 ASTM D4258 Abrade with coarse discs	<b>Abrasive Clean</b> SSPC-SP-13 ASTM D4258 Angled grit
<b>Durability</b>	<b>Mechanical</b> Fork lift traffic	<b>Abrasive Clean</b> Fork lift traffic up to 45ton vehicle
<b>Design Life</b>	<b>Mechanical</b> up to 8 years	<b>Abrasive Clean</b> up to 10 years

- Solvent free epoxy system
- Ready for foot traffic within 48 hours (20°C)
- Ready for forklift traffic within 72 hours (20°C)
- Simple and easy to apply
- Incorporate 1mm clear aggregate for anti-slip finish
- Proven system for warehouse, light industrial applications
- Good chemical resistance to diesel, oil and mild aqueous industrial chemicals



*Powder blending plant had slip issues with the concrete factory floor.*

*The concrete surface was primed with Resichem 503 SPEP low viscosity epoxy primer.*

*Base coat of Resichem 590 Epoxy FC was applied and 1mm clear quartz aggregate was broadcast into the wet surface.*

*Once dry a 2nd coat of material was applied to the floor to encapsulate the aggregate.*



## Product recommended for this type of application....

**Resichem 590 Epoxy FC** is a two component solvent free epoxy floor coating with a gloss finish when fully cured. The coating can withstand contact with mild aqueous industrial chemicals.

# Concrete Surfaces

*kitchens, laboratories, balconies*

<b>Surface Preparation</b>	<b>Manual</b> Abrade with handheld tools	<b>Mechanical</b> SSPC-SP-13 ASTM D4258 Abrade with abrasive discs
<b>Durability</b>	<b>Manual</b> Foot traffic	<b>Mechanical</b> Foot traffic
<b>Design Life</b>	<b>Manual</b> up to 5 years	<b>Mechanical</b> up to 10 years

- Solvent free epoxy technology
- Available in a wide range of decorative colours
- 1–1.5mm pigmented quartz aggregate
- System ready to walk on within 48 hours (20°C)
- Anti-slip decorative finish

*Housing Association required a waterproofing system for over 60 balconies at a complex in the UK.*

*592 Epoxy DF was chosen due to its anti-slip and decorative finish.*

*A base coat of resin was applied at 500-700 microns and then fully blinded with pigmented quartz aggregate.*

*Once cured a light stable sealer coat was applied to the surface to encapsulate the decorative finish*



## Product recommended for this type of application....

**Resichem 592 Epoxy DF** is a multi component flooring system for areas that require a decorative finish. The system has been designed to be applied to primed concrete surfaces and is based on the latest solvent free epoxy technology.

## Concrete Surfaces

### *Chemical resistant anti-slip finish for industrial*

<b>Surface Preparation</b>	<b>Mechanical</b> SSPC-SP-13 ASTM D4258 Abrade with coarse discs	<b>Abrasive Clean</b> SSPC-SP-13 ASTM D4258 Angled grit
<b>Durability</b>	<b>Mechanical</b> Fork lift traffic	<b>Abrasive Clean</b> Fork lift traffic up to 45ton vehicle
<b>Design Life</b>	<b>Mechanical</b> up to 7 years	<b>Abrasive Clean</b> up to 10 years

- Solvent free epoxy novolac technology
- Apply to abrasive blast cleaned metallic surfaces
- Apply to primed concrete surfaces
- Withstands immersion and contact with  
**98% Sulphuric acid**  
**75% Phosphoric acid**  
**36% Hydrochloric acid**
- Incorporate a 2mm bauxite aggregate to give a hard wearing chemical resistant anti-slip finish

*A car battery manufacturer in the EU required a chemical resistant anti-slip finish to the 50% sulphuric acid intake area.*

*After using several other coating manufacturers products without success Resichem 511 UCEN was chosen as the preferred coating for all sulphuric acid areas on site.*

*The contractor applying the coating incorporated a 2mm bauxite aggregate into the coating to give an anti-slip finish capable withstanding the highly concentrated acid*



## Product recommended for this type of application....

**Resichem 511UCEN** is a two component solvent free epoxy novolac coating capable of withstanding immersion and contact with high concentration industrial chemicals.



# Anti-Slip Floor Coating Product Characteristics

	104	507	511	590	592
<b>Compressive strength</b> <i>Tested to ASTM D 695</i>	185kg/ cm <sup>2</sup> (2630psi)	440kg/ cm <sup>2</sup> (6250psi)	984kg/ cm <sup>2</sup> (13,950psi)	531kg/ cm <sup>2</sup> (7550psi)	629kg/ cm <sup>2</sup> (8945psi)
<b>Corrosion Resistance</b> <i>Tested to ASTM B117</i>	5000 hours	5000 hours	5000 hours	5000 hours	2000 hours
<b>Flexural Strength</b> <i>Tested to ASTM D790</i>	240kg/cm <sup>2</sup> (3400psi)	N/A	208kg/cm <sup>2</sup> (2950psi)	208kg/cm <sup>2</sup> (2950psi)	371kg/cm <sup>2</sup> (5275psi)
<b>Hardness</b> <i>Rockwell R to ASTM D785</i>	85	80	85	82	84
<b>Slump Resistance</b>	3mm	750 microns	500 microns	300 microns	150 microns
<b>Tensile Shear Adhesion</b> <i>Tested to ASTM D1002</i>	185kg/cm <sup>2</sup> (2630psi)	169kg/cm <sup>2</sup> (2400psi)	208kg/cm <sup>2</sup> (2950psi)	185kg/cm <sup>2</sup> (2630psi)	201kg/cm <sup>2</sup> (2860psi)
<b>Volume Capacity</b> <i>cc per kg</i>	555	1000	1000	1000	1000
<b>Base density</b> <i>gm per cm<sup>3</sup></i>	1.80	1.31	1.41	1.75	1.12
<b>Activator density</b> <i>gm per cm<sup>3</sup></i>	1.80	1.22	1.02	1.00	1.00
<b>Mixed product density</b> <i>gm per cm<sup>3</sup></i>	1.80	1.29	1.32	1.32	1.08
<b>Dry heat resistance</b> (°C)	130	120	200	160	160
<b>Intermittent wet heat resistance</b> (°C)	80	80	90	80	80
<b>Immersion temperature resistance</b> (°C)	60	70	70	60	60
<b>Mixing ratio by volume</b>	1:1	3:1	3:1	1.15:1	2:1
<b>Mixing ratio by weight</b>	1:1	3.25:1	4:1	2:1	2.24:1

	10 °C			20 °C			30 °C			40 °C		
	Pot life	Touch Dry	Hard dry	Pot life	Touch Dry	Hard dry	Pot life	Touch Dry	Hard dry	Pot life	Touch Dry	Hard dry
<b>104</b>	10mins	60mins	4hrs	5mins	30mins	2hrs	2.5mins	15mins	1hrs	75secs	7.5mins	30mins
<b>507</b>	20mins	5hrs	9hrs	20mins	4hrs	8hrs	15mins	3hrs	7hrs	10mins	2hrs	6hrs
<b>511</b>	50mins	12hrs	24hrs	25mins	6hrs	12hrs	12.5min	3hrs	6hrs	6mins	90mins	3hrs
<b>590</b>	90mins	24hrs	48hrs	45mins	12hrs	24hrs	22.5min	6hrs	12hrs	11mins	3hrs	6hrs
<b>592</b>	50mins	8hrs	16hrs	25mins	4hrs	8hrs	12.5min	2hrs	4hrs	6mins	2hrs	4hrs

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# Anti-Slip Flooring Systems Application Guide

## 104 Metal Repair Fluid XF

Substrate	Surface Preparation	WFT	Aggregate	Durability	Applications
Metallic	Minimum—clean the surface with solvent wipes Ideal—mechanical grinders, coarse pad ST2	2mm	2-3mm Bauxite	Foot Traffic	Stair Nosings

## 507 DWPU

Substrate	Surface Preparation	WFT	Aggregate	Durability	Applications
Metallic	Minimum —mechanical grinders, coarse pad ST3 Ideal—abrasive blast clean SA2.5, 75 mics profile	2mm	2-3mm Bauxite	Heavy Duty up to 65 ton vehicle	Metal decks & Floors

## 511 UCEN

Substrate	Surface Preparation	WFT	Aggregate	Durability	Applications
Metallic	Minimum —mechanical grinders Ideal—abrasive blast clean SA2.5, 75 mics profile	700-800 microns	1mm clear quartz aggregate	Medium Duty Forklift traffic to 45 ton vehicle	Warehouse, industrial , chemical processing floor
Concrete	Minimum—grind and abrade the surface & prime with 503 SPEP Ideal—abrasive blast clean and prime with 503 SPEP				

## 590 Epoxy FC

Substrate	Surface Preparation	WFT	Aggregate	Durability	Applications
Concrete	Minimum—grind and abrade the surface & prime with 503 SPEP Ideal—abrasive blast clean and prime with 503 SPEP	500 microns	1mm clear quartz	Medium Duty Forklift traffic to 45 ton vehicle	Warehouse & industrial floors

## 592 Epoxy DF

Substrate	Surface Preparation	WFT	Aggregate	Durability	Applications
Concrete	Minimum—grind and abrade the surface & prime with 503 SPEP Ideal—abrasive blast clean and prime with 503 SPEP	1-2mm	1mm pigmented quartz	Medium Duty	Balconies, Laboratories, kitchens

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## 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.



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