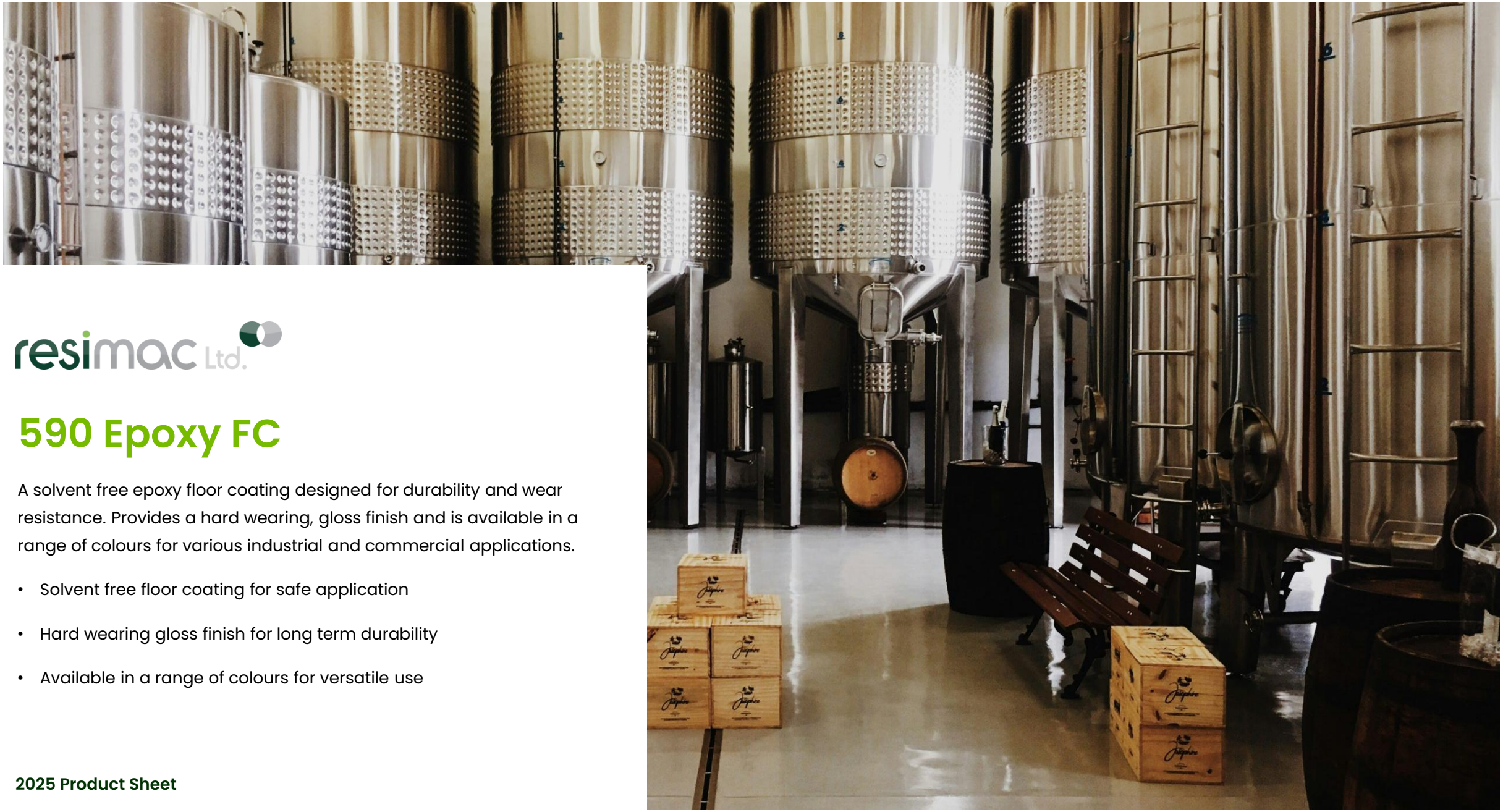

resimac Ltd.

590 Epoxy FC

A solvent free epoxy floor coating designed for durability and wear resistance. Provides a hard wearing, gloss finish and is available in a range of colours for various industrial and commercial applications.

- Solvent free floor coating for safe application
- Hard wearing gloss finish for long term durability
- Available in a range of colours for versatile use

2025 Product Sheet

Typical Applications

590 Epoxy FC is a two component, solvent free epoxy floor coating designed to provide long lasting protection and aesthetic enhancement for concrete and other substrates. Once mixed, it forms a hard wearing, gloss finish, ensuring durability in high traffic environments such as factory floors, warehouses, and food preparation areas.

- Brewery floors
- Laboratories
- Ramps & walkways
- Factory floors
- Warehouse floors
- Food preparation areas

Characteristics

Appearance

Base	Highly structured thixotropic liquid
Activator	Amber liquid
Mixed	Thixotropic liquid

Solids Content

100%

Volume Capacity

720cc/kg

Sag Resistance

Nil at 300 microns

Density

Base	1.44
Activator	1.05
Mixed	1.39

Mixing Ratio

By weight	2.5:1
By volume	1.74:1

Storage Life

5 years if unopened and stored in normal dry conditions, 15-30°C (59-86°F)

Cure times

Usable Life		Min overcoating time		Max overcoating time		Chemical Contact	
10°C/50°F	90 mins	10°C/50°F	32 hours	10°C/50°F	72 hours	10°C/50°F	14 days
20°C/68°F	45 mins	20°C/68°F	16 hours	20°C/68°F	48 hours	20°C/68°F	7 days
30°C/86°F	20 mins	30°C/86°F	12 hours	30°C/86°F	36 hours	30°C/86°F	3 days
40°C/104°F	10 mins	40°C/104°F	8 hours	40°C/104°F	24 hours	40°C/104°F	2 days

Coverage

4.5ltr (1.18 US Gallon) of fully mixed product will give the following coverage rates:

18m² at 250 microns	194ft² at 10mil

18ltr (4.75 US Gallon)

72m² at 250 microns	775ft² at 10mil

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

Mechanical Properties

Abrasion Resistance
Taber CS17 Wheels/1kg load
88mg loss/1000 cycles
0.55cc loss/1000 cycles

Compressive Strength
Tested to ASTM D695
50MPa (7250psi)

Corrosion Resistance
Tested to ASTM B117
Minimum 5000 hours

Flexural Strength
Tested to ASTM D790
522kg/cm² (7400psi)

Hardness
Shore D to ASTM D2240: 85

Adhesion
Tensile Shear to ASTM D1002 on abrasive blasted mild steel with 75 micron profile 160kg/cm² (2275psi)

Impact Resistance
Tested to ASTM G14
3.95 joules

Heat Resistance
Suitable for use in immersed conditions at temperatures up to 60°C (140°F)
Resistant to dry heat up to 180°C (356°F) dependent on load.

Details & Legal

Chemical Resistance
The product resists attack by a wide variety of inorganic acids, alkalis, salts and organic media including:

Brine	40°C (104°F)
Crude Oil	40°C (104°F)
Diesel	40°C (104°F)
Hydrochloric Acid 20%	40°C (104°F)
Naphtha	40°C (104°F)
Phosphoric Acid 30%	40°C (104°F)
Sodium Hydroxide 50%	40°C (104°F)
Sulphuric acid 20%	40°C (104°F)

Pack Sizes
This product is available in the following pack sizes:
18ltrs (4.75 US Gallon)
4.5ltrs (1.18 US Gallon)

Quality
All Resimac Products are supplied under the scope of the company's fully documented quality system.

Warranty
Resimac warrants that the performance of the product supplied will conform to the typical descriptions quoted within this specification provided material is stored correctly and used according to the procedures detailed in this document.

Food Contact
USDA compliant for incidental food contact.

Title 21, Food and Drugs, Chapter I, U.S. Code of Federal Regulations, FDA, Subchapter B – Food for Human Consumption, Section 175.300 (Resinous and Polymeric Coatings).

Application Guide

A. Surface Preparation

Existing concrete:

1. If the concrete surface is contaminated, pressure wash using clean water.
2. Once the concrete is dry, lightly abrasive blast clean or scarify taking care not to expose the aggregate.

New concrete:

1. Allow new concrete to cure for a minimum of 21 days and treat to remove any surface laitance.
2. Check the moisture content of the concrete prior to coating (8% moisture content or below).
3. Lightly scarify the surface taking care not to expose the aggregate.
4. Clean all dust and debris from the surface.

Prime all surfaces:

1. Ensure all concrete surfaces are primed prior to applying 590 Epoxy FC.
2. Apply 503 SPEP low viscosity epoxy primer to the surface using brush or roller.
3. Apply 503 SPEP at a wet film thickness of 150 microns (6mil).
4. Leave to cure for a minimum 3 hours at 20°C (68°F).

B. Product Preparation

Prior to mixing, please ensure the following:

1. The base component is at a temperature between 15-25°C (60-77°F).
2. The ambient & surface temperature is above 10°C (50°F).
3. The ambient & surface temperatures are not less than 3°C (6°F) above the dew point.

C. Mixing

Mix the unit in full (4.5ltrs/18ltrs):

1. Transfer the contents of the Activator unit into the Base container.
2. Using an electric paddle mixer, mix the 2 components until a uniform material free of any streaks is achieved.
3. From the commencement of mixing the whole of the material should be used within 45 minutes at 20°C (68°F).

D. Application

Brush or roller application:

1. Pour the mixed material into a paint kettle or paint tray (this will maximise the usable life).
2. Using a 50mm (2") wide synthetic brush, stripe coat all edges, joints, corners and equipment with the mixed material.
3. Once the stripe coat has cured sufficiently and is capable of being overcoated, apply the 1st coat of mixed product to all surfaces at 250 microns (10mil) wet film thickness.
4. Once the 1st coat of material has cured sufficiently, approximately 12 hours at 20°C (68°F), apply a 2nd coat of material to all surfaces at 250 microns (10mil) wet film thickness.

Health & 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 all information.

Quick Application Guide

Step 1

Ensure you have:
1 x base unit
1 x activator unit
1 x slow speed drill and paddle
1 x spatula
1 x brush
1 x medium pile roller

Step 2

Open the activator tin and pour contents into the base unit.

Step 3

Mix the two components using the drill and paddle. Ensure the product is fully mixed check the material for any colour difference.

Step 4

Once the material is fully mixed pour into a roller tray or clean receptacle and apply the product to the substrate using a brush or roller at a wet film thickness of 250 microns. Broadcast and back roll aggregate into the surface as required.

Step 5

Allow to cure (16 hours minimum) and apply 2nd coat if required including optional aggregate broadcast and back roll.

About Resimac

A UK based manufacturer of epoxy and polyurethane coatings and repair materials.

From our head office in the heart of rural North Yorkshire, England we supply our range of Epoxy, Polyurethane & Silicone coatings and repair materials to the Oil & Gas, Petrochemical, Marine, Paper & Pulp, Water, Power Generation & Chemical Industries.

Legal Notice

Information & Enquiries

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