

resimac^{co}

524 DTM WB

A water based epoxy coating designed for direct to metal application. Offers fast curing, corrosion protection, and is ideal for minimal surface preparation, providing reliable protection in a single coat.

- Water based formulation for eco-friendly, low VOC compliance
- Fast curing formula ideal for detailed surfaces
- Provides long term corrosion protection

2025 Product Sheet

Typical Applications

524 DTM WB is a two component, water based epoxy coating designed for direct-to-metal application, providing long term corrosion protection in a single coat. It bonds seamlessly to both prepared and previously coated metal surfaces, eliminating the need for a primer.

- Structural steel
 - Gantries
 - Roof purlins/beams
 - Trackside equipment
 - Hygienic surfaces
- Rail bogeys
 - Vehicle frames
 - Railings
 - OEM valve & pumps
 - Heavy machinery & equipment

Cure times

| Usable Life | | Min overcoating time Water based & solvent free | | Max overcoating time | | Full Cure | | Touch Dry | |
|-------------|-----------|--|--------------|----------------------|----------|------------|--------|------------|---------|
| 10°C/50°F | 3 hours | 10°C/50°F | 8 & 24 hours | 10°C/50°F | 96 hours | 10°C/50°F | 7 days | 10°C/50°F | 4 hours |
| 20°C/68°F | 90 mins | 20°C/68°F | 4 & 16 hours | 20°C/68°F | 48 hours | 20°C/68°F | 3 days | 20°C/68°F | 2 hours |
| 30°C/86°F | 45 mins | 30°C/86°F | 2 & 16 hours | 30°C/86°F | 24 hours | 30°C/86°F | 2 days | 30°C/86°F | 1 hour |
| 40°C/104°F | 22.5 mins | 40°C/104°F | 1 & 8 hours | 40°C/104°F | 12 hours | 40°C/104°F | 1 day | 40°C/104°F | 30 mins |

Characteristics

| Appearance | | Density | |
|-----------------------------|-------------------------|--|-----------------|
| Base | Red, Black, Grey Liquid | Base | 1.4 |
| Activator | White Liquid | Activator | 1.08 |
| Mixed | Red, Black, Grey Liquid | Mixed | 1.35 |
| Solids Content | Sag Resistance | Storage Life | |
| 45% | Nil at 150 microns | 2 years if unopened and stored in normal dry conditions, 15-30°C (59-86°F) | |
| Mould & Bacteria Resistance | | | |
| Excellent | | | |
| Mixing Ratio | | | |
| By weight | 100:15 | 5ltrs (1.32 US Gallons) | |
| By volume | 5:1 | 50m² at 100microns | 536ft² at 4mil |
| | | 20ltrs (5.28 US Gallons) | |
| | | 200m² at 100microns | 2146ft² at 4mil |

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

Adhesion

Tested to ASTM 3359
Mechanically prepared
SSPC-SP3 (ST3)
Mild steel: class 5B
Aluminum: class 5B
Stainless steel: class 5B
Copper: class 5B

Manually Prepared SSPC-SP2
(ST3)
Mild steel: class 5B
Aluminum: class 4B
Stainless steel: class 4B
Copper: class 4B

Heat Resistance

Maximum intermittent wet
temperature resistance:
150°C (302°F)

Maximum dry heat resistance:
180°C (356°F)

Salt Fog Resistance

Tested to ASTM B117:
5000 hours unaffected

Humidity Resistance

Tested to ASTM BS3900
5000 hours unaffected

Scratch Resistance

Tested to ASTM BS3900
No failure 2.5kg load

Details & Legal

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).*

Quality

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

Chemical Resistance

The product resists attack by a wide
variety of inorganic acids, alkalis,
salts and organic media. For more
detailed information refer to the
Resimac Technical Centre for
advice.

Pack Sizes

This product is available in the
following pack sizes:
5ltrs (1.3 gallons)
20ltres (5.2 gallons)

Application Guide

A. Surface Preparation

Metallic Substrates: Mechanical abrasion

- 1 All oil and grease must be removed from the surface using an appropriate cleaner such as MEK.
- 2 All surfaces must be mechanically abraded using handheld grinders to ISO 8501/4 ST3 (SSPC SP3).
- 3 Once abraded, the surface must be degreased and cleaned using MEK or similar type material.

Metallic Substrates: Manual abrasion

- 1 All oil and grease must be removed from the surface using an appropriate cleaner such as MEK.
- 2 All surfaces manually abraded using a wire brush or abrasive paper to ISO 8501/4 ST2 (SSPC SP2).
- 3 Once cleaned, the surface must be degreased and cleaned using MEK or similar type material.

Metallic Substrates: Abrasive blast cleaning

- 1 All oil and grease must be removed from the surface using an appropriate cleaner such as MEK.
- 2 All surfaces must be abrasive blasted to ISO 8501/4 Standard SA2.5 (SSPC SP10/ NACE 2) minimum blast profile of 25 microns (1mil) using an angular abrasive.
- 3 Once blast cleaned, the surface must be degreased and cleaned using MEK or similar type material.

Metallic Substrates: Hydro-blasting

- 1 All oil and grease must be removed from the surface using an appropriate cleaner such as MEK.
- 2 All surfaces must be hydro-blasted using clean water at 12,000 psi (850bar) to NACE 5 (SSPC SP13 WJ3-WJ1).
- 3 Once cleaned, the surface must be degreased and cleaned using MEK or similar type material.

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 5°C (41°F).

PLEASE NOTE: For salt contaminated surfaces the substrate must be pressure washed with clean water and checked for salt contamination, please refer to the surface preparation and pre-application guide for further information.

C. Mixing

Mix the full unit material (5ltr/20ltrs) :

- 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 90 minutes at 20°C (68°F).

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.

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. The stripe coat must be approximately 100mm (4") wide, at 75-100 microns (3-4mil) wet film thickness.
- 3 Once the stripe coat has cured sufficiently and is capable of being overcoated, apply the mixed product to all surfaces at 75-125 microns (3-5mil) wet film thickness.
- 4 Once the 1st coat has cured sufficiently, approximately 4 hours at 20°C (68°F), apply a 2nd coat of material at 75-125 microns (3-5mil) wet film thickness.

Conventional spray application:

- 1 Stir the product thoroughly before use. No thinning is required, but up to 5% clean water may be added if needed.
- 2 Transfer the mixture to gravity, suction-fed, or pressure pot spray equipment.
- 3 Spray at a minimum 100 microns (4 mil) wet film thickness using a 1.2-1.4mm tip and a 50-100 psi (3-6 bar) spray pressure.

PLEASE NOTE: The base component should be between 15-25°C (60-77°F), the ambient and surface temperature should be above 10°C (50°F), and both must be at least 3°C (6°F) above the dew point.

Overcoating times: The material can be overcoated once it is touch dry, typically after 4 hours at 20°C (68°F). However, the overcoating period should not exceed 48 hours. If this time is exceeded, the material must be fully hardened and then abraded or flash blasted to remove any surface contamination before proceeding.

Quick Application Guide

Conventional spray application



Step 1

Ensure you have:

1 x base unit

1 x activator unit

1 x drill & paddle

1 x conventional or airless
spray equipment



Step 2

Pour the contents of the
activator tin into the base
unit.



Step 3

Mix the two components
using a drill and paddle at a
slow speed.



Step 4

Apply using air or airless
spraying. (Thinning is not
required, but up to 5% water
may be added if necessary).

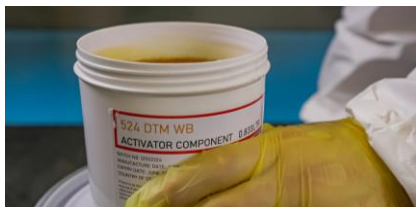


Step 5

Clean all equipment with
water.

Quick Application Guide

Brush or roller application:



Step 1

Ensure you have:

- 1 x base unit
- 1 x activator unit
- 1 x drill & paddle
- 1 x (2") wide brush
(or)
- 1 x Roller & tray



Step 2

Pour the contents of the activator tin into the base unit.



Step 3

Mix the two components using a drill and paddle at a slow speed.



Step 4a

Begin to apply using the brush. The coat must be approximately 75-100 microns (3-4mil) wet film thickness.



Step 4b

Begin to apply using the roller. The coat must be approximately 75-100 microns (3-4mil) wet film thickness.

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

The data contained within this Product Specification 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. Resimac accepts no liability arising out of the use of this information or the product described herein.

Information & Enquiries

For more information and technical data please visit our website or contact us.

www.resimacsolutions.com

info@resimac.co.uk

+44 (0) 1845 577498

Resimac Ltd,
Unit B, Park Barn Estate,
Station Road,
Topcliffe,
Thirsk,
North Yorkshire,
YO7 3SE,
United kingdom

