



# PROCOAT100<sup>®</sup>

## Anti-corrosion coating



## Engineered Coating Solutions

[www.emcoatingsuk.co.uk](http://www.emcoatingsuk.co.uk)



# PROCOAT100® - anti-corrosion coating system

With over 40 years' experience, E/M Coating Services are specialists in the development and application of critical engineered coatings. We provide innovative solutions to engineers seeking cost effective ways to ensure that their components meet critical design and performance requirements.

Our customers service all markets and range from multi-national and OEM organisations to small specialist engineering and manufacturing companies.

We can design and develop bespoke coating products tailored to meet customer's requirements, as well as supplying a wide range of standard and licensed branded products.

We operate the highest quality control procedures including numerous OEM approvals for the application of coatings to aerospace, automotive and other industrial components in addition to AS9100, NADCAP and ISO 9001:2008 approvals.



E/M Coating Services is a division of Metal Improvement Company and forms part of the Curtiss-Wright Corporation, a diversified international provider of highly engineered products and services to the Motion Control, Flow Control and Surface Technology Industries.

[www.curtisswright.com](http://www.curtisswright.com)

**CURTISS  
WRIGHT**

With over 15 years empirical and laboratory data, PROCOAT100® has proven performance for applications operating in harsh environments such as automotive, heavy truck, aerospace, marine, subsea and civil engineering. It far surpasses traditional coatings in the harshest cyclic salt spray and SCAB tests.

## What is PROCOAT100®?

PROCOAT100® is an extremely stable, water based, air cured coating system. It is easy to apply by spray, dip or brush and can be top coated within minutes. It can be applied as a primer or one coat system which results in a tough, **chemically bonded** surface guard that is resistant to corrosion creep, chipping and water penetration.

It has been successfully used on a wide variety of components in the automotive and HGV industry for over 15 years, having been evaluated in the harshest conditions by a range of industry leading OEMs. Its unique anti-chip and anti-corrosive characteristics have made it a proven solution for a wide range of applications.

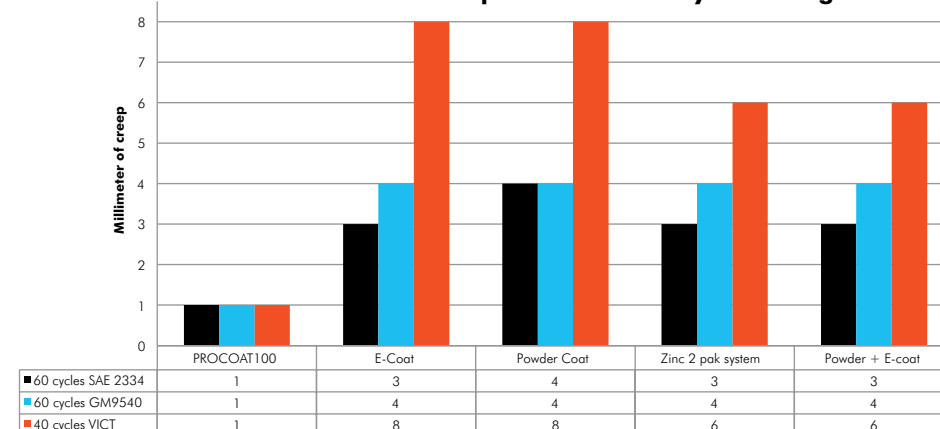
The PROCOAT100® system has outperformed conventional coatings and set new standards of expectation.

## The benefits of PROCOAT100®

- Prevents any corrosion creep, stopping the corrosion at the initial damage site
- Impermeable to liquid
- Exceeds the performance of current state-of-art processes such as E-Coat and powder coat
- Most current facilities can be modified/enhanced to apply this coating at a fraction of the cost that would be required to convert to E-Coat or powder coat
- Very environmentally friendly, not only does it have low VOCs but it contains no heavy metals
- Compatible with nearly all OEM topcoats and meets or exceeds current OEM and fleet performance requirements
- Offers proven superior performance, which is both cost effective and environmentally friendly

## Salt Spray Test Data

Millimeters of creep in accelerated cyclic testing



## The process:

PROCOAT100® is a propriety coating process, carried out by E/M Coating Services. The process can also be carried out in-house under license, following a process audit from an approved specialist.

PROCOAT100® chemically bonds to the surface of the metal, providing greater resilience than traditional coating technologies. The coating can be applied by spraying, dipping or brushing and can be used as a primer or finish coat, available in a variety of colours. Typical applications are 60 µm thick over the profile of the substrate and it is compatible with nearly all OEM topcoats and finishes.



## DRY FILM PROPERTIES

(S CRS Q Panel, 60-80µm, 14 days A.D.)

**Adhesion (ASTM D3359):** 5B

**Hardness (ASTM D3363):** H

**Flexibility (ASTM D522):** Passes 1/8"

**Gloss (ASTM D523):** Flat

**Impact (ASTM D2794):**

Direct- 60 in-lbs. Rev- 20 in-lbs

**Humidity Resistance 1000 Hours:** No

face (ASTM D1735) blistering or corrosion

**SCAB Exposure 13 weeks:** < 1 mm

(SS 117211) scribe creep, no face

blistering or rust

**GM9540P Cyclic Corrosion 1000**

**hours:** 1 mm (Equivalent to SAE J2334)

scribe creep, no face blistering or

corrosion

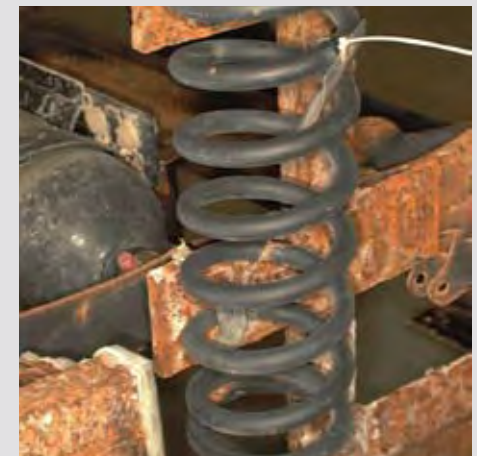
## APPLICATIONS

- **HGV** - chassis, sub frame, wheels, mechanical assemblies, fifth wheel
- **Rail** - engines, axles, bogies, carriage under bodies, rail side mechanical equipment
- **Automotive** - chassis, sub frame, wheels, mechanical assemblies
- **Military vehicles** - chassis, sub frame, wheels, mechanical assemblies, all body work
- **Civil Engineering** - bridges, steel work in buildings, reinforced concrete, any steel supports
- **Street furniture** - sign posts, lampposts, railings
- **Oil and gas** - subsea structures, pipe work, connectors
- **Renewable Energy** - tidal power turbines, wind energy
- **Marine** - boat hulls, boat steel work, buoys
- **Aerospace** - landing gear, undercarriages, ground vehicles



## KEY BENEFITS

- Excellent real world corrosion resistance
- Very low VOC, HAPs free
- Extremely cost effective
- Fast drying water base
- Forms a tough electrochemical bond
- Air-cured
- Excellent block, mar and gravelometer resistance
- Easy to apply
- Easily top coated within minutes
- Applied as a primer or finish coat
- Resistant to chipping
- Excellent stability
- Water resistant
- Proven performance
- Compatible with nearly all OEM topcoats and finishes
- Meets or exceeds current and proposed OEM and fleet performance requirements
- Environmentally friendly



Remains intact whilst other coatings fail around it

INNOVATORS IN TECHNOLOGY



## MARKETS:

- **Aerospace**
- **Automotive**
- **Chemical**
- **Defence**
- **Electronics**
- **Food**
- **Marine**
- **Medical**
- **Mining/quarrying**
- **Motorsport**
- **Petrochemical**
- **Power Generation**
- **Printing**
- **Rail**
- **Telecommunications**
- **Textile**

## COATINGS:

- **Dry film lubricants** - MoS<sub>2</sub>, PTFE, Graphite, WS<sub>2</sub>
- **Coatings** for corrosion, chemical & environmental protection
- **Titanium anodising**
- **Zinc rich coatings** for corrosion protection
- **Impingement coating processes** for ultra thin solid film lubricants coatings
- **Nonstick/release coatings** for low coefficients of friction
- **Primers** for rubber and plastics for sound absorbing and dampening materials
- **Coatings for EMI/RFI shielding** provide highly conductive coatings and platings to control electromagnetic interference
- **Ultra thin conformal Parylene coating** to reduce friction and protect against contamination
- **Pre-treatments include** Phosphate Conversion Coating, Chilled Iron Blasting, Aluminum Oxide Blasting and Vapour Degreasing



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**Metal Improvement Company**

Subsidiary of Curtiss-Wright Corporation

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