



MeCaGuard



Experts in repair and maintenance at your SERVICE
Pioneering Industrial Sustainability

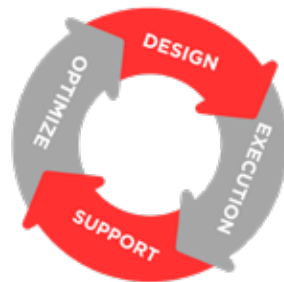


Performance Mindset With CASTOLIN EUTECTIC

Critical industrial equipment is subject to extreme corrosion, with planned and unplanned shutdowns increasing your maintenance and operational costs.

Areas that are difficult to access/ place, such as those at a high elevation, pose an even greater risk to employee safety and your bottom line. In this type of environment, superior corrosion-resistant materials are vital to covering corrosion-prone areas and serve as a way for companies to improve performance and reduce costs.

As a strong global player in wear and tear management, CASTOLIN EUTECTIC is committed to delivering “the optimum solution” to improve your operational and maintenance KPIs, such as:



- **Mean time between failures (MTBF)**
- **Maintenance man-hours (MMH)**
- **Mean downtime (MDT)**
- **Reduced inventory Cost**

Your bottom-line matters to us!

Our corrosion experts and R & D are dedicated to help you to realize the lowest cost possible using our corrosion management solutions by offering an innovative products and services. Our global teams, offer field and benchmark solutions to determine your total cost of ownership.

Schedule a service call with one of our industry specialists today!

For over 100 years, Castolin Eutectic has been at the forefront of supplying the market with value-added surface protection products and solutions.

Castolin Eutectic strives to improve the existing life cycle of plant assets to provide the optimum operational performance against the effects of high corrosion maintenance failures.

Improved Operational Efficiency

Minimized unplanned shutdown

Efficient Maintenance Strategy

Global Presence & Local Outreach

Our Service Centers provide a local presence, though our expertise spans the globe, with international teams that pool resources to solve difficult industrial corrosion problems in a cost-effective way.

Global Wear Management NETWORK with Local Support



1700
Employees



10
Supply centers



20
Service centers



31
Market centers



Castolin Eutectic wear management specialists have technically advanced solutions that redefine equipment life cycles across service centers, regardless of the wear mechanism

Partner of the KEY INDUSTRY We know your industry

Recycling



Automotive



Mining



Chemical



Glass



Steel



Oil and Gas



Pulp and Paper



Power Generation



Sugar



Cement





INTRODUCTION

CUI Corrosion under insulation is a well-known industrial problem that has been plaguing asset owners for decades.

CUI represents one of the costliest corrosion factors for the oil and gas, petrochemical and general processing industries and can lead to unplanned shutdowns, maintenance repairs and even explosions on live plants.

OUR COATING TECHNOLOGIES INCLUDE



Low VOC



Maintenance friendly



Low toxicity



Environment friendly



CUI mitigation



Non-isocyanate



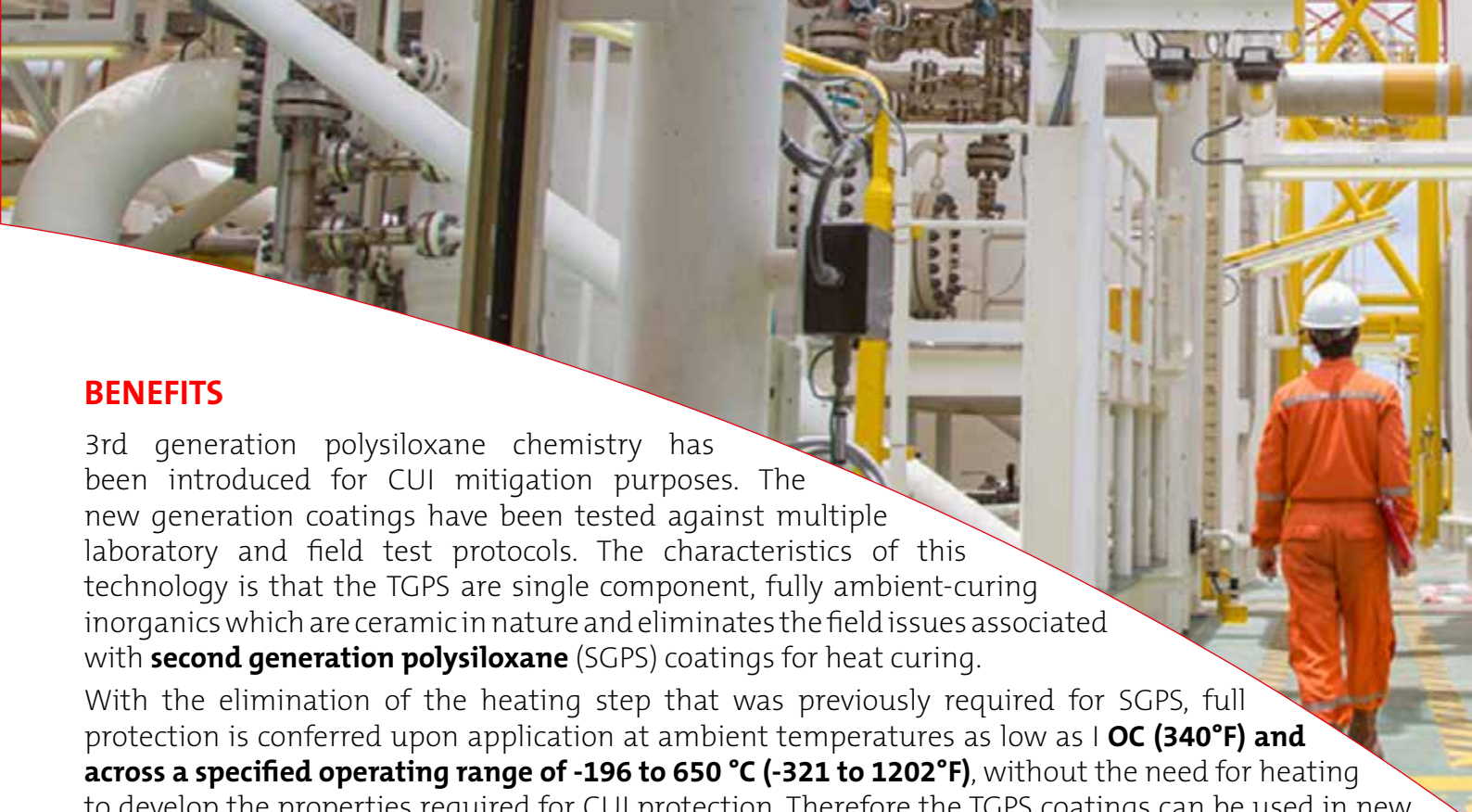
Chemical resistance



Low Carbon

Industry served with MeCaGuard coating

1. Petrochemical
2. Chemical
3. Refineries
4. FPSO Platforms
5. Offshore platforms
6. Cement
7. Nuclear
8. Process industries



BENEFITS

3rd generation polysiloxane chemistry has been introduced for CUI mitigation purposes. The new generation coatings have been tested against multiple laboratory and field test protocols. The characteristics of this technology is that the TGPS are single component, fully ambient-curing inorganics which are ceramic in nature and eliminates the field issues associated with **second generation polysiloxane** (SGPS) coatings for heat curing.

With the elimination of the heating step that was previously required for SGPS, full protection is conferred upon application at ambient temperatures as low as **10C (340°F) and across a specified operating range of -196 to 650 °C (-321 to 1202°F)**, without the need for heating to develop the properties required for CUI protection. Therefore the TGPS coatings can be used in new build and maintenance environments effectively for CUI Mitigation.

INSULATION COATINGS

Our TGPS **third-generation polysiloxane** insulative coating is a water-borne one-component, ambient-curing polysiloxane TIC coating. It is designed for **ultra-high-build** (UHB) in excess of 20,000pm (800 mils) **dry film thickness** (DFT) and a temperature tolerance range from -60 to 400°C (-76 to 752 F) which exceeds the current 1800C (3500 F) limitation of thermal insulation coatings.

The polysiloxane TIC coating can be applied over a TGPS CUI primer as a system for high temperature exposure, personnel protection and thermal insulation purposes. The TGPS CUI/ TIC coating system characteristics are capable of completely mitigating CUI when compared to traditional insulation and cladded systems, and furthermore removes the annular gap between the insulation material and substrate which causes excessive corrosion rates in CUI environments.





MeCaGuard INSU 356

MeCaGuard INSU 356 is a waterbased, single component, **Thermal Insulation Coating (TIC)**, formulated to provide a seamless weather resistant insulation film which can improve

energy efficiency, prevent **Corrosion Under Insulation (CUI)** occurring, reduce condensation build up & provide personal protection according to ISO 13732-1.

The insulation coating acts as a thermal barrier, protecting interior temperatures against cold, warm & humid weather conditions. Can be easily implemented into an inspection program due to the elimination of external cladding therefore, offering a maintenance friendly insulation coating system.

Technical Information

Product chemistry	A waterbased, single component, ceramic filled acrylic.
Colour	White
Specific gravity	Approx. 0.61 g/ml
Typical film thickness	1000µm DFT per coat
Theoretical spreading rate	0.80 m ² /l at 1000µm DFT
Volume solids	80% ± 2%
Thermal conductivity (λ)	0.05 W m ⁻¹ K ⁻¹
Temperature resistance	180°C
Application methods	Airless and brush



MeCaGuard INSU 752

Introducing **MeCaGuard INSU 752** a groundbreaking water-based, inorganic polymeric siloxane matrix Thermal Insulation Coating (TIC). This low-VOC, hydrophobic solution offers seamless weather resistance with operating temperatures from -60 to 400°C. Acting as a thermal barrier, it enhances energy efficiency, prevents Corrosion Under Insulation (CUI), and provides ISO 13732-1 SafeTouch™ properties. ASTM E84 / BS 476 Part 7 tested for construction use, it's a maintenance-friendly insulation system with Ultra-High-Build capabilities up to 20000 microns DFT, offering an alternative to traditional insulation materials.

Technical Information

Product chemistry	A waterbased, single component, ambient curing, ultra-high-build inorganic polymeric siloxane matrix.
Colour	White and Light Grey
Specific gravity	Approx. 0.50 g/cm ³
Typical film thickness	10000µm DFT per coat Total thickness of MeCaGuard INSU 752 will depend on expected service temperatures.
Theoretical spreading rate	0.76 m ² /l at 1000µm DFT 0.08 m ² /l at 10000µm DFT
Volume solids	76% ± 2%
Thermal conductivity (λ)	<0.06 W m ⁻¹ K ⁻¹ (per independent lab evaluation)
Temperature resistance	-60 to 400°C
Application methods	Diaphragm, airless, hopper gun & trowel Please consult Application Guideline.



MeCaGuard CUI 572

MeCaGuard CUI 572 is an innovative inorganic polysiloxane coating designed for corrosion protection in under insulation environments. With high solids chemistry and low VOC, it complies with strict environmental regulations.

Conforming to NACE SP0198-2017 standards, it withstands temperatures from -196 to 300°C, offering exceptional resistance to thermal cycling, saline water, and chemicals. Suitable for OEM and maintenance applications, it tolerates rusted steels, enabling application during equipment operation, eliminating the need for shutdowns.

Technical Information

Product chemistry	A single component, ambient curing, pure inorganic polysiloxane. Conforms to the NACE SP0198-2017 classification.
Colour	RAL 7035 and RAL 3009
Specific gravity	Approx. 1.90 g/ml
Theoretical spreading rate	7.6m ² /l at 100µm DFT
Volume solids	76%
Flashpoint (ISO 1523)	30°C
Auto ignition temperature	450°C
Temperature resistance	-196 to 300°C
Application methods	Airless, airspray and brush & roller



MeCaGuard ST 1112

MeCaGuard ST 1112 is a high temperature resistant siloxane aluminum, single component, ambient curing, coating which is designed to provide corrosion protection throughout a range of temperatures from -196 to 600°C.

Formulated coating to provide corrosion protection to steel equipment which is exterior exposed and operating at elevated or cryogenic temperatures. Designed to withstand thermal cycling throughout its operating range while maintaining corrosion protection to steel substrates.

Technical Information

Product chemistry	A single component, ambient curing, siloxane aluminum.
Colour	AL Light & AL Dark
Specific gravity	Approx. 1.55 g/ml
Typical film thickness	25 - 75µm DFT per coat
Theoretical spreading rate	27.2 m ² /l at 25µm DFT
Volume solids	68% ± 2%
Flashpoint (ISO 1523)	30°C
Auto ignition temperature	>200°C
Temperature resistance	-196 to 600°C
Application methods	Airless, airspray and brush & roller

The background of the top section of the page features a photograph of several tall, silver industrial distillation columns or towers. They are equipped with various pipes, ladders, and platforms, set against a clear blue sky with some light clouds. The image is partially obscured by a white diagonal shape that contains the text.

MeCaGuard CUI 1202

Introducing **MeCaGuard CUI 1202**, a cutting-edge pure inorganic coating for corrosion protection in under insulation environments. Conforming to NACE SP0198-2017 standards, it's designed for cryogenic to elevated temperatures. Withstand temperatures from -196 to 650°C,

offering exceptional resistance to thermal cycling, saline water, and chemicals. Ideal for OEM and maintenance applications, it tolerates rusted steels and can be applied during equipment operation, eliminating the need for shutdowns.

Technical Information

Product chemistry	A single component, ambient curing, pure inorganic polysiloxane. Conforms to the NACE SP0198-2017 classification of Inert Multi-Polymeric Matrix coatings.
Colour	Light Grey & Dark Grey
Specific gravity	Approx. 1.90 g/ml
Theoretical spreading rate	6.40 m ² /l at 100µm DFT
Volume solids	64% ± 2%
Flashpoint (ISO 1523)	30°C
Auto ignition temperature	450°C
Temperature resistance	-196 to 650°C
Application methods	Airless, airspray and brush & roller



MeCaGuard HT 1200

MeCaGuard HT 1200 is a single component, ambient curing polysiloxane topcoat which is thermally colour stable at elevated temperatures. The product can be operated within cryogenic -196 to 650°C temperature range. Completely inorganic chemistry results in ultra-high performance regarding operating temperature & UV degradation.

Available in a full range of safety colours, RAL shades & custom colours formulated upon request. The product can be applied over suitably primed steel surfaces such as one of the MeCaGuard HT 1200 anti-corrosion coatings. Can be applied in service up to 130°C substrate temperature.

Technical Information

Product chemistry	A single component, ambient curing, polysiloxane.
Colour	Safety colours & RAL shades.
Specific gravity	Approx. 1.60 g/ml
Theoretical spreading rate	14.6 m ² /l at 50µm DFT
Volume solids	73% ± 2% (colour dependent)
Flashpoint (ISO 1523)	30°C
Auto ignition temperature	500°C
Temperature resistance	-196 to 650°C
Application methods	Airless, airspray and brush & roller

*Pioneering
Industrial Sustainability*



Your resource for protection, repair and joining solutions

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