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# Technical Data Sheet

## JP™ CORRO TEMP 700°C

### Product Description

JP™ CORRO TEMP 700°C is a solvent-based glass-ceramic composite coating. It is resistant to low temperature of -20°C and high temperature resistance up to 1000°C continuously, if the substrates permit. The coating can be used as both primer and finish coat.

Suitable for steel surfaces such as carbon steel and stainless steel, in addition to ceramic substrates. All applications are advised to adhere to the Application Guide. Application can be performed on hot substrates up to 70°C.

### Area of Application

The product is designed to prevent corrosion on insulated and non-insulated substrates. Corrosion Under Insulation (CUI) can be prevented. The ability of the coating to withstand high temperature makes it suitable for Chimney & Ducting (external), Boilers, High Temperature Induced Draft (ID) Fans, Thermal Power Plant, Petrochemical Industries, High Temperature Reactors, Heat Exchangers etc.

With heat induced curing, the coating will become abrasion resistant, making it appropriate for Chimney & ducting (internal), Ash Conveyors, Boiler Drums, External Steam Valves and Fittings. Cured CORRO TEMP can be applied in a continuously submerged environment such as water and oil tanks to prevent corrosion and substrate erosion.

### Colour

Grey with matte finish.

### Product Description

PROPERTY	DESCRIPTION	TEST / STANDARDS
Density	1.8 – 1.9 kg/l	ASTM D5201
Viscosity	Thixotropic Thick Liquid	Calculated
Solid by weight	70 ± 2 %	ASTM D2369
VOC	230gms/kg	ASTM D3960
Flash Point	25 °C	ASTM D3278
Adhesive Strength	900 psi	ASTM D3359
Salt Spray Resistance	> 2000 hours	ASTM B117

The provided data is typical for factory production, subject to slight variation.

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## Film Thickness per coat

### Typical Recommended Coating Thickness

Wet film thickness (WFT)	150 – 200 microns
Dry film thickness (DFT)	120 – 150 microns
Theoretical coverage	4.0 m <sup>2</sup> /kg

2 coats can be applied with maximum of 200 microns WFT for each coat. A minimum of 24 hours of curing at room temperature is needed in between the first and second coat. *Please refer to the “Drying and Curing time” section.*

## Surface preparation

For better adhesion, all surfaces shall be clean, dry, and free from any contamination

### Surface preparation summary table

Substrate	Surface Preparation	
	Minimum	Recommended
Carbon Steel	ST 2 (ISO 8501-1)	SA 2.5 (ISO 8501-1)
Stainless Steel	The substrate shall be mechanically prepared to form scratch patterns, and all forms of polish removed.	Blast Cleaning with non-metallic abrasive media to achieve sharp and angular surface profile and to remove all forms of polish
Ceramic Substrate	Clean and dry surface	Clean and dry surface
Coated Surfaces	Clean, dry and undamaged compatible coating	Clean, dry and undamaged compatible coating

## Application Application Method

JP™ CORRO TEMP 700°C can be applied using 2 methods:

- Spray : Use Airless spray or Air Paint Sprayer / High Volume – Low Pressure (HVLV).  
Brush : Recommended for smaller areas. Care must be taken to achieve required Dry Film Thickness (DFT)

## Thinner

Thinner: Xylene

Thinning is important to achieve the best spraying properties. It is recommended to thin the product by 5% (in volume ratio, equivalent to 140ml for 5kg). Addition of thinner beyond the recommended percentage may cause sagging.

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### Conditions for application

Substrate Temperature : 10 - 70°C  
Relative humidity : Below 85%

### Air Paint Sprayer / High Volume – Low Pressure (HVLP) Guide

Nozzle Tip : 5 – 6 mm  
Pressure at nozzle (minimum) : 7 bar / 101 psi

### Airless Spray Guide

Nozzle Tip : 5 – 6 mm  
Pressure at nozzle (minimum) : 150 bar / 2200 psi

## Drying and Curing time

### Drying

	Substrate Temperature		
	10°C	25°C	40°C
Surface touch dry	10 h	2 h	1 h
Walk-on-dry	24 h	8 h	5 h
Dry to over coat (minimum)	24 h	8 h	5 h
Dried / cured for service	10 d	48 h	12 h

Surface touch dry : The state of drying when slight pressure with a finger does not leave an imprint or reveal tackiness.

Walk-on-dry : Minimum time before the coating can tolerate normal foot traffic without permanent marks, imprints or other physical damage.

Dry to over coat : The recommended shortest time before the next coat can be applied.

Dried / cured for service : Minimum time before the coating can be permanently exposed to the intended environment.

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### Curing

Abrasion resistance of the product can be realized with heat induced (direct or indirect) curing. Curing is an additional non-compulsory process.

Direct / Indirect Heat			
50°C	100°C	150°C	200°C
12 h	8 h	2 h	1 h

Curing is resulted by substrates' natural operating temperature or by other heating element such as heating torch, burner and oven.

Drying and curing times are determined under controlled temperatures and relative humidity below 85% and at average DFT of the product.

### Pot Life

Pot Life at ambient temperature : 12 hours

### Heat Resistance

	Continuous	Peak
Ceramic	1000°C	NA
Carbon Steel / Stainless Steel	700°C	800°C

The temperature stated reflects the retention of protective properties. Aesthetic properties may suffer at these temperatures.

### Packaging

	WEIGHT (KG)
JP™ CORRO TEMP 700°C	5.0 KG or 20.0 KG



## Application Guide

### JP™ CORRO TEMP 700°C

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## Storage

Keep the containers in a dry, cool, well-ventilated place and away from sources of heat and ignition. Containers must be kept tightly closed. Handle with care.

## Shelf life at 25 °C

JP™ CORRO TEMP 700°C	12 months
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Storage temperature must not exceed 40 °C.

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## Health and Safety

Use under well ventilated conditions. Do not inhale spray mist. Avoid skin contact. Spillage on the skin should immediately be removed with suitable cleanser, soap and water. Eyes should be well flushed with water and medical attention provided immediately.

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## Colour Variation

Colour retention may vary depending on exposure, environment such as temperature, UV intensity etc., and application quality. Product may fade and chalk when exposed to sunlight and weathering.

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## Disclaimer

The information provided in this document is given to the best of JP's knowledge, based on laboratory testing and practical experience. However, the condition of which the product may be used is beyond JP's control. Users should always consult JP for general suitability of this product for their needs and specific application practices.

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Technical Data Sheet (TDS) must be read in conjunction with The Application Guide (AG) and Safety Data Sheet (SDS)