JDHR205 Phenolic Epoxy Heat-Resistant Paint

Product description

This is a two-component polyamine-cured phenolic epoxy coating. It is heat-resistant up to 205 ℃ and can be applied on hot substrates at 150 ℃. Suitable for service temperatures as low as -196 ℃ (-321 °F). It can be used on surfaces with or without insulation. The product may serve as a primer, intermediate coat or topcoat; the aluminum-colored version is suitable for topcoat use only. Suitable for properly prepared carbon steel, galvanized steel, stainless steel and aluminum.

Typical use

Protective:

Designed as corrosion protection for surfaces operating at elevated temperatures where long corrosion protection is desired. Suitable for insulated and non insulated surfaces.

Colours

light grey, light red, red, white, aluminium

The aluminum-colored version can only be used as a topcoat and shall not be overcoated.

Product date

Property	Test/Standard	Description
Solids by volume	ISO 3233	75±2%
Gloss level（GU60°）	ISO 2813	matt（0-35）
Flash point	ISO 3679 Method 1	24℃
Density	calculated	1.5Kg/L
VOC-China	GB/T23985-2009(ISO11890-1)	203g/L

The provided data is typical for factory produced products, subject to slight variation depending on colour.

All data is valid for mixed paint.

Film thickness per coat

Typical recommended specification range

Dry film thickness	100μm - 200μm
Wet film thickness	133μm - 266μm
Theoretial spreading rate	7.5m^2/L - 3.7 m^2/L

Surface preparation

To secure lasting adhesion to the subsequent product 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 2½ (ISO 8501-1)
Stainless steel	The surface shall be hand ormachine abraded with non-metallic abrasives or bonded fibre machine or hand abrasive pads to impart a scratch pattern to the surface.	Abrasive blast cleaning to achievea surface profile using non-metallic abrasive media which is suitable to achieve a sharp and angular surface profile.
Aluminium	The surface shall be hand ormachine abraded with non-metallic abrasives or bonded fibre machine or hand abrasive pads to impart a scratch pattern to the surface.	Abrasive blast cleaning to achievea surface profile using non-metallic abrasive media which is suitable to achieve a sharp and angular surface profile.
Coated surfaces	Clean, dry and undamaged compatible coating	Clean, dry and undamaged compatible coating
Galvanised steel	The surface shall be clean, dry and appear with a rough and dull profile.	Sweep blast-cleaning using non- metallic abrasive leaving a clean, rough and even pattern.
Shop primed steel	Dry, clean and approved inorganic zinc shopprimer.	Sa 2½ (ISO 8501-1)

Optimum performance, including adhesion, corrosion protection, heat resistance and chemical resistance is achieved with recommended surface preparation.

Application

Application methods

The product can be applied by

Spray:	Use airless spray.
Brush:	Recommended for stripe coating and small areas. Care must be taken to achieve the specified dry film thickness.
Roller:	May be used for small areas. Not recommended for first primer coat. Care must be taken to achieve the specified dry film thickness.

Product mixing ratio (by volume)

JDHR205Phenolic Epoxy Heat-Resistant Paint	Comp A	6.5 part(s)
JDHR205Phenolic Epoxy Heat-Resistant Paint	Comp B	1 part(s)

Thinner/Cleaning solvent

Thinner: Jindun Thinner No. 123

Guiding date for airless spray

Nozzle tip (inch/1000): 17-21

Pressure at nozzle (minimum): 150 bar/2100 psi

Drying and Curing time

Substrate temperature	10℃	15℃	23℃	40℃	100℃
Surface (touch) dry	16h	12h	4h	2h	30min
Walk-on-dry	26h	20h	10h	4h	30min
Dry to over coat, minimum	26h	20h	10h	4h	30min
Dried/cured for service	21d	14d	7d	3d	1d

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

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, minimum: 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/medium.

Induction time and Pot life

Paint temperature	**23℃**
Induction time	10min
Pot life	2h

Heat resistance

	Temperature	
	Continuous	**Peak**
Dry, atmospheric	205℃	-

Packaging(typical)

		Volume		Size of containers	
		Litre	US gal	litre	US gal
JDHR205Phenolic Epoxy Heat-Resistant Paint	Comp A	16.3	4.3	20	5.3
JDHR205Phenolic Epoxy Heat-Resistant Paint	Comp B	2.5	0.7	3	0.8

The volume stated is for factory made colours.

Storage

The product must be stored in accordance with national regulations. Keep the containers in a dry, cool, well ventilated space and away from sources of heat and ignition. Containers must be kept tightly closed. Handle with care.

Shelf life at 23 °C

JDHR205Phenolic Epoxy Heat-Resistant Paint	Comp A	24	month(s)
JDHR205Phenolic Epoxy Heat-Resistant Paint	Comp B	24	month(s)

In some markets commercial shelf life can be dictated shorter by local legislation. The above is minimum shelf life, thereafter the paint quality is subject to re-inspection.

Caution

This product is for professional use only. The applicators and operators shall be trained, experienced and have the capability and equipment to mix/stir and apply the coatings correctly and according to Jindun's technical documentation. Applicators and operators shall use appropriate personal protection equipment when using this product. This guideline is given based on the current knowledge of the product. Any suggested deviation to suit the site conditions shall be forwarded to the responsible Jindun representative for approval before commencing the work.

Health and safety

Please observe the precautionary notices displayed on the container. 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 sought immediately.

Colour variation

When applicable, products primarily meant for use as primers or antifoulings may have slight colour variations from batch to batch. Such products and epoxy based products used as a finish coat may chalk when exposed to sunlight and weathering.

Colour and gloss retention on topcoats/finish coats may vary depending on type of colour, exposure environment such as temperature, UV intensity etc., application quality and generic type of paint.

Disclaimer

The information in this document is given to the best of Jindun's knowledge, based on laboratory testing and practical experience. Jindun's products are considered as semi-finished goods and as such, products are often used under conditions beyond Jindun's control. Jindun cannot guarantee anything but the quality of the product itself. Minor product variations may be implemented in order to comply with local requirements. Jindun reserves the right to change the given data without further notice.
Users should always consult Jindun for specific guidance on the general suitability of this product for their needs and specific application practices.