JDUtmost

Product description

This is a two component polyamine cured epoxy coating. It is a high build, solvent free product. It provides superior resistance against impacts and abrasion. It has excellent ice friction performance and ice slip properties. Can be used as primer, finish coat or as single coat system in atmospheric and immersed environments.Suitable for properly prepared carbon steel substrates.

Typical use

Marine:

Recommended for underwater hull in newbuilding and drydocking. Designed as a premium solution where abrasion resistance, impact resistance and ice slip properties are required. Suitable as anode shield around ICCP anodes.

Protective: Recommended for offshore environments, including splash zones, refineries, power plants, bridges, buildings, mining equipment and general structural steel.

Protective:

Suitable for new construction and structural steel to be immersed or exposed to up to very high corrosive environments. Recommended for offshore environments, including splash zones. Designed as a premium solution where abrasion resistance, impact resistance and ice slip properties are required. Compatible with cathodic protection systems.

Colours

grey, black,red

Product date

Property	Test/Standard	Description
Solids by volume	ISO 3233	98±2%
Gloss level（GU60°）	ISO 2813	gloss（70-85）
Flash point	ISO 3679 Method 1	90℃
Density	calculated	1.5Kg/L
VOC-China	GB/T23985-2009(ISO11890-1)	18g/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

Dry film thickness	350µm - 550µm
Wet film thickness	350µm - 550µm
Theoretial spreading rate	2.9m²/L - 1.8m²/L

For use as anode shield: Minimum 2 x 500 µm dft

For ice resistance, film thickness 500 µm applied as one coat and with no thinning is recommended.

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	Sa 2½ (ISO 8501-1)	Sa 2½ (ISO 8501-1)
Stainless steel	The surface shall be hand or machine 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 achieve a 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

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, or two component heated airless spray equipment.
Brush:	Recommended for stripe coating and small areas. Care must be taken to achieve the specified dry film thickness.

Product mixing ratio (by weight)

JDUtmost Comp A	4.56 part(s)
JDUtmost Comp B	1 part(s)

Thinner/Cleaning solvent

Thinning is not recommended, but if needed max. 3 %.

Sag resistance will decrease with added thinner.

Cleaning solvent: Jindun Thinner No. 103

When thinners are used as a cleaning solvent, the use must be in accordance with prevailing local regulations.

Guiding date for airless spray

Nozzle tip (inch/1000): 19-23

Pressure at nozzle (minimum): 200 bar/2900 psi

Minimum pump capacity: min. 2.2 l/min

Drying and Curing time

Substrate temperature	0℃	5℃	10℃	15℃	23℃	40℃
Surface (touch) dry		17h	13h	7h	4h	2h
Walk-on-dry		17h	18h	14h	9h	3h
Dry to over coat, minimum		24h	18h	14h	9h	3h
Dried/cured for immersion		4d	4d	4d	2d	2d
Dried/cured for service	42d*	14d	10d	10d	7d	3d

For maximum overcoating intervals, refer to the Application Guide (AG) for this product.

* Vessels destined for trade in icy waters must be allowed curing for 42 days if the substrate temperature is between 0 °C and 5 °C.

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℃
Pot life	2h

Reduced at higher temperatures, and with increased mixing volumes.

Heat resistance

Temperature

	Continuous	Peak
Dry, atmospheric	120℃	-
Immersed, sea water	50℃	60℃

Peak temperature duration max. 1 hour.

The temperatures listed relate to retention of protective properties. Aesthetic properties may suffer at these temperatures.

Note that the coating will be resistant to various immersion temperatures depending on the specific chemical and whether immersion is constant or intermittent. Heat resistance is influenced by the total coating system. If used as part of a system, ensure all coatings in the system have similar heat resistance.

Product compatibility

Depending on the actual exposure of the coating system, various primers and topcoats can be used in combination with this product. Some examples are shown below. Contact Jindun for specific system recommendation.

Subsequent coat: vinyl epoxy, epoxy, polyurethane

Packaging(typical)

	Weight (Kg)	Size of containers (litres)
JDUtmost Comp A	20.5	20
JDUtmost Comp B	4.5	5

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

JDUtmost	Comp A	12	month(s)
JDUtmost	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.