Technical Data Sheet

金盾涂料
KINDON PAINT

JDEP390GF HB Epoxy GF Coating

Product description

This is a two-component polyamine-cured epoxy coating. It is a high-solid, high-build product reinforced with glass flakes. It has excellent abrasion resistance. It is suitable for extremely corrosive environments. It can be used as a primer, intermediate coat, topcoat or single-coat system in both atmospheric and immersion environments. It is suitable for properly prepared carbon steel and concrete substrates.

Typical use

Suitable for steel structures and pipelines in highly corrosive environments and in immersion service. Recommended for offshore environments such as refineries, power stations, bridges, buildings, mining equipment and general structural steel. Particularly suitable for areas requiring high mechanical strength. Compatible with cathodic protection systems.

Colours

White, grey, red oxide and other colours

Product data

Performance	Test/Standard	Description
Solids by volume	ISO 3233	90±2%
Gloss (GU 60°)	ISO 2813	Matt
Flash point	ISO 3679 Method 1	40℃
Density	Theoretical value	1.2Kg/L
VOC - China	GB/T23985-2009(ISO11890-1)	97g/L

The data listed are based on laboratory tests and may vary slightly in actual factory batch production. All data are valid only for the mixed coating.

Film thickness per coat

Typical recommended specification range

Dry film thickness	400μm	-	800μm
Wet film thickness	444μm	-	888μm
Theoretical spreading rate	2.2 m^2/ L	-	1.1 m^2/ L

Surface preparation

To ensure lasting adhesion of the subsequent coat, all surfaces must be clean, dry and free from contamination.

Surface preparation summary table

Substrate	Surface preparation	
	Minimum	Recommended
Carbon steel	Sa 2½ (ISO 8501-1)	Sa 2½ (ISO 8501-1)
Concrete	Allow at least 4 weeks of curing time. Maximum moisture content 5%. Treat the surrounding concrete surfaces by enclosed shot blasting, diamond grinding and other suitable methods to remove laitance.	Allow at least 4 weeks of curing time. Maximum moisture content 5%. Treat the surrounding concrete surfaces by enclosed shot blasting, diamond grinding and other suitable methods to remove laitance.
Steel coated with shop primer	Sa 2 (ISO 8501-1)	Sa 2 (ISO 8501-1)
Painted surfaces	Clean, dry and intact compatible primer.	Clean, dry and intact compatible primer.

Optimum performance, including adhesion, corrosion protection, heat resistance and chemical resistance, is achieved with the 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: Can be used on small areas. Not recommended for the first primer coat. Care must be taken to achieve the specified dry film thickness

Product mixing ratio (by volume)

JDEP390GF HB Epoxy GF Coating Component A	2.5
JDEP390GF HB Epoxy GF Coating Component B	1

Thinner/Cleaning solvent

Thinner: Jindun Thinner No. 103

Drying and curing time

Substrate temperature	10℃	23℃	40℃
Surface (touch) dry	8 hours	4 hours	2 hours
Walk-on-dry	20 hours	10 hours	4 hours
Dry to overcoat, minimum	20 hours	10 hours	4 hours
Dried/cured for service	14 days	7 days	3 days

The drying and curing times are measured based on temperature and relative humidity, with relative humidity below 85% and dry film thickness within the average dry film thickness range.
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 footprints, marks or other physical damage.
Dry to over coat, minimum: The recommended shortest time interval 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	45min

Heat resistance

	Temperature	
	Continuous	Peak
Dry, atmospheric environment	120℃	120℃
Immersed, seawater	50℃	60℃

The peak temperature can be tolerated for a maximum of one hour.
At the above temperatures, the protective properties are not affected. However, the appearance may be affected.

Note that this coating can withstand different immersion temperatures depending on the specific chemical and on whether the immersion is continuous or intermittent. Heat resistance is influenced by the entire coating system. If used in combination with other coatings, ensure that all coatings in the system have similar heat resistance.

Product compatibility

Depending on the actual exposure conditions in service, this product can be used in combination with different primers and topcoats. Some reference systems are shown below. For specific systems, please contact Jindun.

Previous coat: inorganic zinc silicate shop primer

Subsequent coat: epoxy, polyurethane

Packaging (typical)

	Net weight (litres)	Container size (litres)
JDEP390GF HB Epoxy GF Coating Component A	12.5	20
JDEP390GF HB Epoxy GF Coating Component B	5	5

The above packaging specifications are typical references for factory batch production. Packaging specifications and capacities may vary from place to place due to different local regulations.

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

JDEP390GF HB Epoxy GF Coating Component A 12 months

JDEP390GF HB Epoxy GF Coating Component B 12 months

The above is the minimum shelf life, after which testing is required to determine whether the quality is acceptable.

Caution

This product is for professional use only. Applicators and workers shall be trained, experienced and capable, and equipped to correctly mix/stir and apply the coating in accordance with Jindun technical documentation. Applicators and workers shall use appropriate personal protective equipment when

using this product. This guidance is provided on the basis of current product knowledge. Any proposed adjustment to suit site conditions must be approved in advance by the responsible Jindun representative before use.

Health and safety

Please observe the precautionary notices on the container. Use under well ventilated conditions. Avoid inhaling spray mist. Avoid skin contact,
In case of contact with skin, wash immediately with a suitable cleaner, soap and water. In case of contact with eyes, rinse thoroughly with water and seek medical attention immediately.

Colour variation

When applicable, products primarily intended for use as primers or antifoulings may show slight colour variations from batch to batch. Likewise, fading and chalking may occur when exposed to sunlight and weathering.

Disclaimer

The information provided in this data sheet is based entirely on the knowledge gained in our laboratory and in practice. Jindun products are regarded as semi-finished goods, and the use of the products is generally beyond our control. Jindun therefore guarantees only the quality of the product itself. Products may be adjusted appropriately to comply with local regulations, and we reserve the right to modify this data sheet without prior notice. Users should consult Jindun for specific guidance on the suitability of the product for their own needs and specific applications.