Technical Data Sheet

金盾涂料 KINDON PAINT

HY-1 MIO Epoxy Intermediate Coat

Product description

Composed of epoxy resin, polyamine curing agent, anti-corrosive pigments and fillers, micaceous iron oxide grey, anti-settling agent, solvent, etc. The coating has excellent barrier and anti-corrosion properties. The paint film is tough and durable, with strong adhesion and impact resistance.

Typical use

Can be used as an intermediate coat over high-performance anti-corrosive primers such as epoxy zinc-rich primer and inorganic zinc-rich primer, to enhance the intercoat adhesion and protective performance of the whole coating system; it can also be applied directly onto blast-cleaned steel surfaces as an anti-corrosive primer. Widely used in anti-corrosion coating systems for ships and onshore steel structures.

Suitable for use as an anti-corrosive primer and intermediate coat in C1-C3 corrosive environments.

Colours

Grey

Product data	Test/Standard	Description
Gloss	ISO 2813	matt
Density	Theoretical value	Approx. 1.7Kg/L
Solids by volume	ISO3233	(59±2)%
Flash point	ISO 3679 Method 1	27℃

The data listed are based on laboratory tests and may vary slightly in actual factory batch production.

All data are valid for white paint; data for other colours may vary slightly.

Film thickness per coat

Typical recommended specification range

Dry film thickness	80um-160um
Wet film thickness	135 um-270um
Theoretical spreading rate	0.23Kg/m^2 - 0.46Kg/m^2

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	St 2 (ISO 8501-1) or SSPC SP-2	Sa 2½ (ISO 8501-1) or NACE No. 2 / SSPC SP-10
Galvanized steel	The surface should be clean and dry with a suitable roughness	Sweep blasting with a non-metallic abrasive should be carried out to produce a clean, rough and uniform surface.
Painted surfaces	Clean, dry and intact compatible primer (in compliance with ISO 12944-4 6.1.4 standard).	Sa 2½ (ISO 8501-1)

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 or air spray.

Brush: Recommended for stripe coating and small areas. Care must be taken to achieve the specified dry film thickness.

Roller: Can be used for small areas. Not recommended for the first primer coat. Care must be taken to achieve the specified dry film thickness.

Product mixing ratio (by weight)

HY-1 MIO Epoxy Intermediate Coat Component A	9
HY-1 MIO Epoxy Intermediate Coat Component B	1

Thinner/Cleaning solvent

Thinner: Jindun Thinner No. 103

Guiding data for airless spray

Nozzle tip (inch/1000):	17-27
Pressure at nozzle (minimum):	15 MPa

Drying and curing time

Substrate temperature	-5℃	0℃	5℃	10℃	23℃	40℃
Surface (touch) dry	12 hours	8 hours	6 hours	4 hours	2hours	1 hour

Walk-on-dry	48 hours	48 hours	30 hours	30 hours	24 hours	10 hours
Dry to overcoat, minimum	24 hours	24 hours	10 hours	10 hours	6 hours	2 hours

For maximum overcoating intervals, please consult Jindun technical personnel.

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.

Induction time and pot life

Paint temperature	**23℃**
Pot life	3.0h

Heat resistance

Temperature

	Continuous	Peak
Dry, atmospheric environment	120℃	140℃

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.

When 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, epoxy primer, zinc silicate primer

Subsequent coat: epoxy, polyurethane, fluorocarbon, polysiloxane

Packaging (typical)

		Net weight (Kg)	Container size (litres)
HY-1 MIO Epoxy Intermediate Coat	Component A	27	20
HY-1 MIO Epoxy Intermediate Coat	Component B	3	4

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

HY-1 MIO Epoxy Intermediate Coat	Component A	12	months
HY-1 MIO Epoxy Intermediate Coat	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 shall be trained, experienced and capable, equipped with suitable equipment, and shall mix, stir and apply the coating in accordance with Jindun's technical documentation. Appropriate personal protective equipment shall be worn during operation. This guideline is based on current product information; any application adjustment made to suit site conditions must be approved in advance by an authorised Jindun representative before it is carried out.

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.