H53-20 Epoxy anti rust paint

Product description

This is a two component polyamine cured epoxy coating. Designed as a primer and mid coat for new construction and maintenance. Can be used as primer and mid coat as part of a complete system in atmospheric environments. Suitable for properly prepared carbon steel, stainless steel, aluminium, galvanised steel, shop primed steel and thermally sprayed zinc substrates.

Typical use

Suitable for structural steel exposed to highly corrosive environments. Recommended for infrastructure, HPI, energy, industrial workshop and wide range of equipment including but not limited to engine, machinery, carriage, special vehicle, etc., for both new construction and maintenance.

Colours

grey, iron red, aluminium, aluminium red

Product date

Property	Test/Standard	Description
Solids by volume	ISO 3233	68±2%
Gloss level（GU60°）	ISO 2813	matt（0-35）
Flash point	ISO 3679 Method 1	27℃
Density	calculated	1.49Kg/L
VOC-China	GB/T23985-2009(ISO11890-1)	185g/L

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

Gloss description: According to Jindun Performance Coatings' definition.

Film thickness per coat

Typical recommended specification range

Dry film thickness	80μm	-	120μm
Wet film thickness	118μm	-	176μm
Theoretial spreading rate	0.18Kg/m^2- 0.26Kg/m^2		

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 or machine abraded with non-metallic abrasives or bonded fibre machine or hand abrasive pads to impart a scratch pattern to the surface and to remove all polish from the surface.	Abrasive blast cleaning to achieve a surface profile using approved non- metallic abrasive media which is suitable to achieve a sharp and angular surface profile.
Aluminium	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 and to remove all polish from the surface.	Abrasive blast cleaning to achieve a surface profile using approved non- metallic abrasive media which is suitable to achieve a sharp and angular surface profile.
Galvanised steel	The surface shall be clean, dry and appear with a rough and dull profile.	Light brush blasting using non- metallic abrasive leaving a clean, rough and even pattern.
Shop primed steel	Dry, clean and intact shop primer.	Abrasive swept or alternatively blasted to Sa 2 (ISO 8501-1) of at least 70 % of the surface.
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.
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 Weight）

H53-20	Comp A	10 part(s)
H53-20	Comp B	1 part(s)

Thinner/Cleaning solvent

Thinner: Jindun Thinner No. 103

Guiding date for airless spray

Nozzle tip (inch/1000):	17-27
Pressure at nozzle (minimum):	150 bar/2100 psi

Drying and Curing time

Substrate temperature	-10℃	-5℃	0℃	5℃	10℃	20℃	40℃
Surface (touch)	16 h	10 h	6 h	3 h	1 h	20 min	15 min
Hard dry	120 h	96h	48 h	36 h	24 h	24 h	12 h
Dry to over coat, minimum	48 h	24 h	12 h	10 h	7 h	2 h	1 h

Drying and curing times are determined under controlled temperatures and relative humidity below 80 %, 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.

Hard dry: Minimum time before the coating can tolerate normal foot traffic without permanent marks, imprints or other physicaldamage.

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

The above data is based on measurements taken at a dry film thickness of 40 microns. In practical applications, as the dry film thickness increases, the drying time is correspondingly extended

Maximum over coating intervals

Maximum time before thorough surface preparation is required. The surface must be clean and dry and suitable for over coating. Inspect the surface for chalking and other contamination and if present, remove with an alkaline detergent. Agitate the surface to activate the cleaner and before it dries, wash the treated area by low- pressure water cleaning using fresh water.

If maximum over coating interval is exceeded the surface should in addition be carefully roughened to ensure good inter coat adhesion.

The referred intervals relate specifically to over coating with Jindun Performance Coating products.

Areas for atmospheric exposure

Average temperature during drying/curing	-10℃	-5℃	0℃	5℃	10℃	20℃	40℃
Itself	3 mth	3 mth	3 mth	3 mth	3 mth	3 mth	2 mth
acrylic	20 d	14 d	10 d	7 d	7 d	5 d	1 d
epoxy	3 mth	3 mth	3 mth	3 mth	3 mth	3 mth	2 mth
polysiloxane			10 d	10 d	10 d	7 d	5 d
polyurethane			14 d	14 d	14 d	14 d	14 d

Induction time and Pot life

Paint temperature	**20℃**
Induction time	-
Pot life	4 h

Heat resistance

	Temperature	
	Continuous	**Peak**
Dry, atmospheric	120℃	140℃

Peak temperature duration max. 1 hour.

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

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.

Previous coat: inorganic zinc silicate shop primer, epoxy, zinc epoxy, zinc silicate

Subsequent coat: acrylic, epoxy, polyurethane, polysiloxane, vinyl epoxy, epoxy mastic, vinyl epoxy

Packaging(typical)

		Weight (Kg)	Size of containers (litres)
H53-20	Comp A	25	20
H53-20	Comp B	2.5	3

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

H53-20	Comp A	24	month(s)
H53-20	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.