JDE06-80

Product description

This is a two-component, moisture-curing, inorganic zinc silicate coating. It is a high-zinc product characterized by fast curing. It meets the composition requirements of SSPC Paint 20, Level 1; ISO 12944-5; and AS/NZS 3750.15:1994.
It offers excellent corrosion resistance and can be used either as a standalone coating or as part of a multi-coat system. The coating provides heat resistance up to 500°C (932°F). It is designed for use as a primer in atmospheric environments, either within a coating system or as a standalone application. It is intended solely for properly prepared carbon steel substrates. The zinc dust used in this product meets the requirements of ASTM D520, Type II.

Typical use

Protective:
Suitable for steel structures and pipelines exposed to highly corrosive environments, C5-I or C5-M (ISO 12944-2). Recommended for offshore and industrial applications, such as refineries, power plants, bridges, buildings, mining equipment, and general structural steel. Designed specifically for use as a primer in a multi-coat system to ensure enhanced long-term durability.

Colours

Grey

Product date

Property	Test/Standard	Description
Solids by volume	ISO 3233	36±2%
Gloss level（GU60°）	ISO 2813	matt
Flash point	ISO 3679 Method 1	14℃
Density	calculated	2.0Kg/L
VOC-China	GB/T23985-2009(ISO11890-1)	549g/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	40μm - 90μm
Wet film thickness	111μm - 250μm
Theoretial spreading rate	4.5 m^2/Kg – 2m^2/Kg

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) with a surface profile Fine to Medium G (ISO 8503-2)	Sa 2½ (ISO 8501-1) with a surface profile Fine to Medium G (ISO 8503-2)

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 air spray or airless spray.

Brush: Recommended for stripe coating and small areas. Care must be taken to achieve the specified dry film thickness. In order to avoid settling of heavy zinc, continuous mechanical stirring during application is recommended.

Product mixing ratio (by weight)

JDE06-80	Comp A	4 part(s)
JDE06-80	Comp B	1 part(s)

Thinner/Cleaning solvent

Thinner: Jindun Thinner No. 114/ Jindun Thinner No. 125

Thinning max.: 5%

Jindun Thinner No. 114: for fast evaporation

Jindun Thinner No. 125: for slow evaporation

Thinning is not normally required. Consult the representative for advice during application in extreme conditions. Do not thin more than allowed by local environmental legislation.

Guiding date for airless spray

Nozzle tip (inch/1000):	17-21
Pressure at nozzle (minimum):	100 bar/1400 psi

Drying and Curing time

Substrate temperature	5℃	10℃	23℃	40℃
Surface (touch) dry	40min	20min	10 min	8min
Walk-on-dry	3h	55min	40 min	30 min
Dry to over coat, minimum	48h	24h	24h	12h
Dried/cured for service	96h	48h	24h	12h

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

The drying and curing times, as well as over coating intervals for inorganic zinc ethyl silicates are measured under controlled temperatures, relative humidity (RH) 70 % during application and curing, and at average of the DFT range for the product. Higher RH will increase the curing speed.

At application below 60% RH curing will be retarded. At this time, spraying fresh water to increase air humidity should be used to assist in solidification

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 physicaldamage.

Dry to over coat, minimum: The recommended shortest time before the next coat can be applied. The curing principle of inorganic zinc silicate primer is moisture absorption and curing of the paint film. It is necessary to confirm that the paint film is completely cured before applying the next layer of paint. Usually, the paint film can be wiped with a cotton cloth dipped in No. 114 diluent. If no paint film dissolves on the cloth, it indicates that it has been completely cured.

Dried/cured for immersion: Minimum time before the coating can be permanently immersed in sea water.

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 °C**
Pot life	6 h

Reduced at higher temperatures.

Heat resistance

	Temperature	
	Continuous	Peak
Dry, atmospheric	400℃	500℃

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: epoxy , silicone acrylic

Packaging(typical)

	Weight (Kg)	Size of containers (litres)
JDE06-80 Comp A	30	20
JDE06-80 Comp B	7.5	10

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

JDE06-80	Comp A	12 month(s)
JDE06-80	Comp B	6 month(s)

The shelf life of component B at a temperature of 23 ℃ is 6 months, and exceeding 6 months may cause thickening and failure.

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.