ZD5100 Water-borne Acrylic DTM（Direct to Metal）Coating

Product description:

An environment-friendly water-based single component base paint composed of water acrylic modified epoxy emulsion, anti-rust pigment, water and additives.

Leading feature:

Paint film has excellent rust prevention and anticorrosion prevention performance;

Paint film has good light and color protection performance;

Fast drying speed and easy construction.

Applicattion:

As a DTM or as a primer, bare steel surfaces that have been sprayed and cleaned for light to moderate corrosive environments, such as building steel structures, bridges, construction machinery, tanks and pipelines, and power facilities, can be used together with high-performance paint to further improve the corrosion resistance of the coating;

Specification data:

Pigment: Blue, red, or custom color

Lustre: zero diopter

Volume solid content: 50 ± 3%

Mixing density (kg/L): 1.2 ± 0.1

Typical membrane thickness and theoretical coating rate:

	Lowest	typical case	Highest
Thickness of dry film (μm)	40	60	80

zd.rich-tech-coatings.com · WhatsApp +86 136 1192 0143

Thickness of wet film (μm)	80	120	160
Theoretical coating rate (kg / m^2)	0.096	0.144	0.192

Actual coating rate: allow appropriate loss coefficient

VOC content: ≤100g / L

general description of construction

Applicable substrate and surface treatment:

New steel: Remove grease from the surface with appropriate detergent and rinse the surface with salt and other dirt with fresh water. Remove welding slag, smooth weld and sharp edges, spray and clean to Sa 2.5 (ISO8501-1), with surface roughness of Rz30μm~75 μm (medium roughness in ISO8503-1 comparison plate), preferably apply primer within 4 hours after jet cleaning. The steel can also be polished to the St3 level.

Maintenance: thoroughly grease the surface with proper detergent and remove salt and other dirt with high pressure fresh water. It is best to use jet cleaning to remove rust and other loose substances, but also use power tools to polish small area rust, with this product.

Construction and curing environmental conditions:

Construction environment temperature is 5~40℃, air relative humidity is not more than 80%, and the surface of the steel temperature should be greater than the dew point of 3℃; rain, fog, snow, strong wind and large dust in severe weather, no outdoor use;

Coating deployment:

Mix: this product is a single can, first in use with an electric mixer to stir well, and add the appropriate amount of deionized water to adjust to the appropriate construction viscosity.

Diluent / detergent: deionized water (shall be cleaned before the tool paint is dry and with alcohol ether solvent when dry)

zd.rich-tech-coatings.com · WhatsApp +86 136 1192 0143

Construction:

Construction method: Airless spraying or air spraying is recommended. Brushing and roller coating are only recommended for precoating, small-area coating or repair. Soft bristle brush or short bristle roller should be used to reduce bubbles. Soft wool brush or short wool roller should be used to reduce air bubbles.

Construction parameters:

Job practice	Unit	High-pressure airless spraying	Air spraying	Brush / roll coating
Spray gun aperture	mm	0.38～0.48	1.5～2.0	——
Spray pressure	kg/cm^2	150～200	3～4	——
Dilute amount	%	0～3	0～5	0～3

Drying / curing time and coating interval:

Surface temperature of substrate	5℃	15℃	25℃	35℃
Finger stylus	4 h	2 h	1 h	30 Min
dry hard	36 h	30 h	24 h	18 h
Shortest coating interval	30 h	24 h	20 h	14 h
The longest coating interval	For 6 months, the surface should be clean and clean from dirt			

Note: The above data are measured under good ventilation, typical film thickness and 65% relative humidity, for reference only. The actual drying time and the time interval before the coating can be long or short, depending on the thickness of the

zd.rich-tech-coatings.com · WhatsApp +86 136 1192 0143

paint film, ventilation conditions, humidity, lower paint, advance loading and unloading requirements, mechanical strength and other factors. The coating is completely cured before being in the immersion environment.

Typical paint fittings:

Front paint: Various water-based or solvent-based acrylic, epoxy, polyurethane intermediate coatings or anti-rust primers.

Remarks:

During construction and drying and curing, the relative humidity shall not be greater than 80%.

When roller coating and brush coating are used, it may be necessary to apply multiple layers to achieve complete covering effect, especially for some lead-free bright colors, such as yellow, orange, etc.

Packaging, Storage, and Management:

Packaging specification: 20kg

Flash point:> 115℃

Storage conditions: It must be stored in accordance with state regulations. The storage environment temperature is above 0℃, dry, cool, well ventilated, and avoid heat source and fire source. Packaging containers must remain airtight.

Storage shelf life: One shelf life for good storage conditions is 1 year.

Health, Safety, and Environmental Protection:

The safety of the construction site shall comply with the regulations of the relevant national or the local government. Please note the safety labels on the package and read the Product Safety Data Manual (MSDS).

Avoid inhaling paint mist, avoiding paint contact with skin and eyes, and do not swallow this product. Take necessary preventive and protective measures to protect the environment. Use this product under good ventilation. Strong ventilation must be provided for construction in narrow places or places with no air circulation to facilitate the drying of paint film.

Waste disposal must comply with relevant national or local government regulations.

Statement:

zd.rich-tech-coatings.com · WhatsApp +86 136 1192 0143

The data and data of this product are accumulated based on our test and practical use experience, and can be used as a construction guide. However, since the use of the product is usually outside the scope of our control, we only provide the quality guarantee of the product itself. We reserve the right to modify according to the continuous improvement of the product without prior notice.

Version information was published in April 2024. This manual replaces the previous version

zd.rich-tech-coatings.com · WhatsApp +86 136 1192 0143

Contact us / 联系我们

RichTech Industrial Technology (Shanghai) Co., Ltd.

锐亿奇工业科技（上海）有限公司

Heavy-duty coatings · 工业重防腐涂料

Address 地址

10F, Changhui Building, No.799 Yinxiang Road, Jiading District, Shanghai, China

上海市嘉定区银翔路 799 号昌辉大厦 10F

WhatsApp	+86 136 1192 0143
WeChat 微信	+86 183 2185 3252
Email 邮箱	sales@rich-tech.net
Web 网址	zd.rich-tech-coatings.com

Scan to contact us 扫码联系我们

WeChat 微信

+86 183 2185 3252

WhatsApp

+86 136 1192 0143