

Cathacoat® 304V



Inorganic Zinc-Rich Silicate

PRODUCT DESCRIPTION

A low VOC, inorganic zinc-rich ethyl silicate based primer providing outstanding corrosion protection for properly prepared steel surfaces. Contains 82% zinc dust in the dry film for long term corrosion protection.

INTENDED USES

Ideal for protection of steel structures found in such places as pulp and paper mills, sewage and waste treatment plants, chemical processing plants, refineries, and for bridge and tank coatings.

Suitable for industrial, marine and process environments.

Topcoat is required for more severe chemical exposures.

For use at newbuilding or maintenance and repair.

PRACTICAL INFORMATION FOR CATHACOAT 304V

Color	Reddish Grey
Gloss Level	Matte
Volume Solids	81% ± 2%
Typical Thickness	2.5-3 mils (62-75 microns) dry equivalent to 3.1-3.7 mils (77-93 microns) wet
Theoretical Coverage	524 sq.ft/US gallon at 2.5 mils d.f.t and stated volume solids 13.06 m ² /liter at 62 microns d.f.t and stated volume solids
Practical Coverage	Allow appropriate loss factors
Method of Application	Airless Spray,Air Spray

Drying Time

Temperature	Touch Dry	Hard Dry	Overcoating Interval with recommended topcoats	
			Minimum	Maximum
50°F (10°C)	30 minutes	2 hours	48 hours	Extended ¹
59°F (15°C)	25 minutes	1.5 hours	36 hours	Extended ¹
77°F (25°C)	15 minutes	1 hour	24 hours	Extended ¹
104°F (40°C)	15 minutes	1 hour	24 hours	Extended ¹

¹ See International Protective Coatings Definitions & Abbreviations

Overcoating is dependent upon ambient conditions. The figures quoted above have been determined at the quoted temperature and 50% relative humidity. See Product Characteristics for further advice.

REGULATORY DATA

Flash Point (Typical) Part A 62°F (17°C);Part B Not applicable;Mixed 65°F (19°C)

Product Weight 27.4 lb/gal (3.28 kg/l)

VOC 2.42 lb/gal (290 g/l) EPA Method 24

See Product Characteristics section for further details

Protective Coatings

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SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application, all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Abrasive Blast Cleaning

Abrasive blast clean to Sa2½ (ISO 8501-1:2007) or SSPC-SP10 for optimum performance. SSPC-SP6 may be only used when the exposure is considered mild. If oxidation has occurred between blasting and application of Cathacoat 304V, the surface should be reblasted to the specified visual standard

Surface defects revealed by the blast cleaning process should be ground, filled, or treated in the appropriate manner.

A surface profile of 2.0-2.5 mils (50-63 microns) is recommended.

Shop Primed Steelwork

Cathacoat 304V is suitable for application to unweathered steelwork freshly coated with solvent based zinc silicate shop primers.

If the zinc shop primer shows extensive or widely scattered breakdown, or excessive zinc corrosion products, overall sweep blasting will be necessary. Other types of shop primer are not suitable for overcoating and will require complete removal by abrasive blast cleaning.

Weld seams and damaged areas should be blast cleaned to Sa2½ (ISO 8501-1:2007) or SSPC-SP10.

APPLICATION

Mixing	Cathacoat 304V is supplied in 2 parts, a liquid Binder base component (Part A) and a Powder component (Part B). The Powder (Part B) should be slowly added to the liquid Binder (Part A) while stirring with a mechanical agitator. DO NOT ADD LIQUID TO POWDER. Material should be filtered prior to application and should be constantly agitated in the pot during spraying. Once the unit has been mixed it should be used within the working pot life specified.		
Mix Ratio	1part(s):2.86part(s)by weight Mix ratio is given for advice; always mix the product in the proportions supplied.		
Working Pot Life	50°F (10°C) 12 hours	59°F (15°C) 10 hours	77°F (25°C) 8 hours
Airless Spray	Recommended	Tip Range 15-21 thou (0.38-0.53 mm) Total output fluid pressure at spray tip not less than 1593 psi (112 kg/cm ²)	
Air Spray (Pressure Pot)	Recommended	Typical pump Gun Air Cap Fluid Tip	Graco X-Treme 40:1 or similar DeVilbiss MBC-510/JGA-510 (Binks 2100) 704 or 765 (Binks 66SD or 68PB) E (1.8mm or D (2.2mm) or Binks 66,67
Brush	Not recommended		
Roller	Not recommended		
Thinner	Not normally required	If necessary, use International GTA138. Do not thin more than allowed by local environmental legislation. For tropical conditions use International GTA027	
Cleaner	International GTA138		
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA138. Once units of paint have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units.		
Clean Up	Clean all equipment immediately after use with International GTA138. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays. All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.		

Inorganic Zinc-Rich Silicate

PRODUCT CHARACTERISTICS

The minimum overcoating interval is dependent upon the relative humidity during cure. Below 55% relative humidity the minimum recoat period will normally be at least 24 hours, but will be dependent upon the ambient temperature and relative humidity during the application and curing period.

Surface temperature must always be a minimum of 5°F (3°C) above dew point.

At relative humidities below 50%, curing will be severely retarded and humidity may need to be increased by steam or water spraying.

Excessive film thickness and/or over-application of Cathacoat 304V can lead to mudcracking, which will require complete removal of the affected areas by abrasive blasting and re-application in accordance with the original specification.

As is characteristic with high solids coatings, care should be taken to maintain the recommended wet film thickness in order to avoid excessive dry film thickness. Care should be exercised to avoid the application of dry film thicknesses in excess of 5.0 mils (125 microns).

For high temperature systems the thickness of Cathacoat 304V should be restricted to 2 mils (50 microns) d.f.t. Continuous dry temperature resistance of Cathacoat 304V is 752°F (400°C) if left untopcoated. If this product is used as a primer for Intertherm 50, the dry temperature resistance will also be 752°F (400°C).

It is recommended that prior to overcoating a solvent rub test to ASTM D4752 should be undertaken. A value of 4 indicates a satisfactory degree of cure for overcoating purposes.

Cathacoat 304V is not suitable for exposure in acid or alkaline environments.

When applying Cathacoat 304V in confined spaces, ensure adequate ventilation.

This product complies with:

- SSPC Paint Specification No. 20 Type 1C

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in color and normal manufacturing tolerances.

SYSTEMS COMPATIBILITY

When it is necessary for Cathacoat 304V to be overcoated with another coating, the surface of the zinc film must be clean and free of any zinc salts. A minimum of 2 mils (50 microns) d.f.t of any subsequent coat is needed to ensure good film formation.

Before overcoating with recommended topcoats ensure Cathacoat 304V is fully cured. If weathering has occurred all zinc salts should be removed from the surface by fresh water washing, and if necessary scrubbing with bristle brushes.

Recommended topcoats/intermediates are:

Bar-Rust 231	Bar-Rust 233H
Bar-Rust 235	Bar-Rust 235V
Bar-Rust 236	Devran 201H
Devran 203	Devran 224V

In some cases it may be necessary to apply a mist coat of the topcoat to minimize bubbling. This will depend upon the age of the Cathacoat 304V, surface roughness and ambient conditions during curing and application. Alternatively an epoxy sealer can be used to reduce bubbling problems, such as Devran 201H.

For other suitable topcoats/intermediates, consult International Protective Coatings.

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ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	5 US gal	2.42 US gal	5 US gal	1.22 US gal	5 US gal
	1 US gal	0.48 US gal	1 US gal	0.24 US gal	1 US gal
	Metric Equivalent:				
	Unit Size	Part A Volume		Part B Volume	
	5 US gal	9.16 litres		4.62 litres	
	1 US gal	1.82 litres		0.91 litres	
	For availability of other pack sizes contact International Protective Coatings				
SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A	Part B		
	5 US gal	25.3 lb	72.4 lb		
	Metric Equivalent:				
	Unit Size	Part A Weight		Part B Weight	
	5 US gal	11.48 kg		32.8 kg	
STORAGE	Shelf Life	Part A 6 months minimum at 77°F (25°C). Part B 12 months minimum at 77°F (25°C). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.			

Disclaimer

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

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