

PRODUCT DESCRIPTION

Generic: Self-curing Water Based Alkali Silicate Zinc

General Description: CATHA-COAT 305 is a two-pack-age water based alkali silicate zinc-rich coating, made up of a powdered zinc metal and liquid portion packaged in the proper mixing ratio.

Typical Uses: CATHA-COAT 305 is recommend as a one or two coat tank lining intended to protect steel against corrosion and prevent product contamination. CATHA-COAT 305 has a long proven successful history in refineries, chemical process plants, chemical storage tanks and pulp and paper mills. CATHA-COAT 305 may also be top coated with a variety of finish coats.

SPECIFICATION DATA

Color: Gray

Finish: Flat

Reduction Solvent: Do not thin – see mixing instructions.

Clean-up Solvent: Water

Weight/Gallon: 24 lbs./gal. (2.9 kg/L)

VOC (EPA 24): 0 lbs./gal. (0 g/L)

Solids By Volume: 61% (wet/dry method)

Theoretical Coverage at 1.0 Mil (25 microns) Dry: 978 sq. ft./gal. (24 m²/L)

Recommended Film Thickness: 3.0-5.0 mils (75-125 microns) dry – 4.9-8.2 mils (123-205 microns) wet

Systems: Please consult the appropriate system guide, the particular job specification or your ICI Paints' Representative for proper systems using this product. Systems must be selected considering the particular environment involved.

Service Temperature Limits: 750°F (400°C) dry

Minimum Dry Time (ASTM D 1640): At 3 mils (75 microns) DFT & 50% R.H.

FEATURES

Advantages:

- Water based, non-flammable
- Meets all air pollution regulations
- Good application properties
- Resists mudcracking
- Can be applied in two coats
- Resistant to solvents

Limitations of Use: May be damaged, as would all zincs, by strong acids or bases. Refer to Tank Lining Chemical Resistance Table for details. Do not topcoat with alkyd or alkyd-urethane coatings.

CATHA-COAT 305 Coating, like all waterbased inorganic zinc rich primers, may retain trace amounts of alkalinity in the coating film after cure. This may be detrimental to coating performance if water is allowed to puddle on the surface. Use only steel storage, shipping and structural design configurations that prevent the puddling of water on the coating. Trace amounts of alkaline residue may concentrate in a drying puddle and result in high pH values that dissolve the coating film. Thorough rinsing of the cured film will reduce the probability and magnitude of this problem.

	77°F (25°C)
To Self Recoat	2 hours
To Handle	4 hours
To Recoat	24 hours
For Immersion Service	7 days

Ventilation, film thickness, humidity, thinning, and other factors can influence the rate of dry.

Warning: The above table provides general guidelines only. Always consult your ICI Paints' Representative for appropriate recoat windows since the maximum aged recoat time of this product may be significantly shortened or lengthened by a variety of conditions, including, but not limited to humidity, surface temperature, and the use of additives or thinners. The use of accelerators or force curing may shorten the aged recoat of individual coatings. The above recoat windows may not apply if recoating with a product other than those listed above. If the maximum aged recoat window is exceeded, please consult your ICI Paints' Representative for appropriate recommendations to enhance adhesion. Failure to observe these precautions may result in intercoat delamination.

Shelf Life: Over 12 months at 70°F (23°C) – unopened

Mix Ratio By Volume: 3.5 (liquid): 1.5 (powder) – see mixing instructions.

Induction: None

Pot Life: 5 hours @ 77°F (25°C) & 50% R.H.

Percent Zinc Content: 90% ± 2% in dry film.

PERFORMANCE DATA

Salt Spray Resistance: (ASTM B 117) – Excellent

Adhesion: (ASTM D 4060) – Excellent

Humidity Resistance: (ASTM D 2247) – Excellent

GENERAL SURFACE PREPARATION

All surfaces must be sound, dry, clean, free of oil, grease, dirt, mildew, form release agents, curing compounds, loose and flaking paint and other foreign substances.

New Surfaces: Steel – Abrasive blast to minimum SSPC-SP10 or ISO-Sa2½ near-white. Blast profile on steel should be 1.5 - 2.5 mils (38-62 microns) in depth and be of a sharp, jagged, nature as opposed to a “peen” pattern (from shot blasting). Surfaces must be free of grit dust. The first coat of the system should be applied to cleaned surfaces as soon as possible to prevent re-rusting or contamination.

Previously Painted Surfaces: Remove old paint, Prepare surface and prime as for new steel. Achieve a minimum of SSPC-SP10 or ISO-Sa2½.

DIRECTIONS FOR USE

Tinting: Do not tint.

Thinning: Do not thin.

Mixing: CATHA-COAT 305 Coating is supplied in two components, comprised of a liquid portion and a dry powdered metal portion. The two components, when completely mixed together, make up the proper mix ratio. The powder portion should be added to the liquid portion slowly while agitating with a power mixer at lower speeds. After the powder add is complete, mix well at higher speeds. Always filter through a wire screen 30 to 60 mesh or equivalent before spraying to insure removal of any powdered zinc agglomerates. Be sure spray equipment is free of solvents before using. Do not apply during freezing weather or if freezing conditions are anticipated shortly; do not allow product to freeze. Application during periods of very high humidity will prevent the evaporation of water, thus retarding the dry.

Application: CATHA-COAT 305 is normally air sprayed. If the proper airless equipment is used – Graco 30:1 zinc pump #954-421 – it can be airless sprayed. Be sure to apply at the lowest possible fluid pressures. To insure easy application, always use power agitated pressure pots (Graco models 222-230 - 5 gallon or 222-231 - 10 gallon), low fluid pressure of 15 psi (1.0 bars), and heavy duty spray equipment.

Due to the heavy weight of the CATHA-COAT 305 Coating, the diameter of the fluid hoses should be at least 1/2" ID for air spray and 3/8" ID for airless applications, fluid hoses should not exceed 50 feet. Pressure pots and airless pumps should be kept level with or above the spray gun. CATHA-COAT 305 Coating is normally applied to a minimum of 3 mils; however, for maximum protection, especially over rough or pitted surfaces, 5 mils are often applied. CATHA-COAT 305 Coating can be readily touched up with itself.

Spreading Rate: Apply at 196-326 sq.ft. per gallon (5-8 m²/L) depending on surface texture and porosity. Make allowances for any losses due to overspray or surface irregularities.

System: For maximum protection, a two coat system, plus one stripe coat over sharp edges, cutouts, and welds, is recommended.

Ventilation: In tank coating applications, good ventilation with dry air is required. Dehumidification equipment is required to prevent the steel from re-rusting and to maintain the relative humidity at no higher than 50% during the application and curing period.

Dry Time: At 77°F (25°C) & 50% R.H., dries to self recoat in 2 hours; dry to recoat with other coatings in 24 hours and for service in 7 days.

Clean-up: Use only water for clean-up. Never use organic solvents.

PRECAUTIONS

WARNING! CAUSES EYE AND SKIN BURNS. CAUSES RESPIRATORY TRACT IRRITATION. HARMFUL IF SWALLOWED. USE ONLY WITH ADEQUATE VENTILATION. KEEP OUT OF THE REACH OF CHILDREN. For emergency information call (800) 545-2643. **Note: These warnings encompass the product series. Prior to use, read and follow product-specific MSDS and label information.** If sanding is done, wear a dust mask to avoid breathing of sanding dust. Do not breathe vapors or spray mist. Ensure fresh air entry during application and drying. Avoid contact with eyes and skin. If you experience eye watering, headaches, or dizziness, leave the area. If properly used, a respirator may offer additional protection. Obtain professional advice before using. Close container after each use. **FIRST AID:** In case of skin contact, wash thoroughly with soap and water. If any product remains, gently rub petroleum jelly, vegetable or mineral/baby oil onto skin, then wash again with soap and water. Repeated applications may be needed. Remove contaminated clothing. For eye contact, flush **immediately** with large amounts of water, for at least 15 minutes. **Obtain emergency medical treatment.** If swallowed, **obtain medical treatment immediately.** If inhalation causes physical discomfort, remove to fresh air. If discomfort persists or any breathing difficulty occurs, **get medical help.** **KEEP FROM FREEZING.**

DS243-1003

SHIPPING

Flash Point: None	
Packaging: 1 gallon kit (3.785L)	5 gallon kit (18.925L)
0.7 gallon liquid	3.5 gallon liquid
0.3 gallon powder	1.5 gallon powder

Shipping Weight: 4 - 1 gallon kits - 102 lbs. (46.4 kg)
5 gallon kit - 126 lbs. (57.3 kg)

305L0200/305P0299 (5/04)
Ad Stock #68653C



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