

Description

CEILCOTE 322 FLAKELINE coating is a thin film flake filled catalyzed vinyl ester system that exhibits excellent resistance to acids, salts, oils, grease and aliphatic organics. It is recommended for dilute alkaline environments.

Typical Uses

- Structural steel
- Chemical process equipment
- Rail Tanker Cars, Over the Road Tankers
- Immersion services for many dilute acids

Advantages

- Can be applied over concrete or steel
- Excellent resistance to acids
- Low permeability
- Reinforced with laminar flake particles

Color

White

Chemical Resistance

Information on the chemical resistance properties will be furnished on request.

Substrate

Refer to Ceilcote steel specification CPT-2 or Ceilcote concrete specification CPT-1.

Surface Preparation

Metal - For immersion or intermittent splash and spillage conditions, abrasive blast to "White Metal" in accordance with Steel Structures Painting Council Specifications **SP-5 (Sa3 (ISO 8501-1:2007))** or **NACE Specification #1**. For fumes and dry environments, abrasive blast to "Near White" in accordance with **SP-10 (Sa2½ (ISO 8501-1:2007))** or **NACE #2**. A minimum surface profile of 3.0 mils (75 microns) is required.

Concrete - Abrasive blasting or scarification to remove laitance and surface contaminants is recommended. Concrete must be thoroughly cured, free of oils, curing solutions and mold release agents, dust and must be dry at time of application. Use ASTM D 4263 (plastic sheet test method) to ensure concrete is moisture free. If moisture is detected, re-test until dry.

Application

Mixing Ratio	By Volume
CEILCOTE 380 Primer	
380 Primer Resin	1 gal (3.79 liters)
#2 Hardener	2.5 oz (74 ml)
CEILCOTE 322 Flakeline	
322 Flakeline Resin	1 gal (3.79 liters)
#3 Hardener	2 oz (74ml)

The coating system consists of a primer, spray applied base coat and topcoat, with a nominal dry film thickness of 16 to 20 mils (400-500 microns). It can be applied on concrete and metal surfaces with proper surface preparation.

Priming

Prime surfaces with 2.0 to 5.0 wet mils (50-125 microns) of Ceilcote 380 Primer. Use CEILCOTE 380 Primer with the addition of CEILCOTE C#1 Powder (5.2 lbs per 5 gal unit) when spark testing (high voltage holiday testing) will be conducted on concrete.

Mechanically premix CEILCOTE 322 resin for 2 minutes prior to adding hardener. After initial mixing, add 2 oz (59ml) of #3C Hardener per gallon of CEILCOTE 322 resin and mix three additional minutes.

Apply CEILCOTE 322 resin and hardener at 11 to 13 mils (275-325 microns) WFT to yield 8 to 10 DFT (200-250 microns), target of 9 mils (225 microns) DFT. Allow to harden. Repeat for second coat application.

Application Equipment

May be applied by spray, brush or roller

Airless Spray

Use a minimum 28:1 ratio pump with a 3/8 inch ID fluid line. A 60 mesh screen is recommended and Graco REVERSE-A-CLEAN or Spraying Systems ROTOCLEAN tips to eliminate possible tip plugging. Tungsten Carbide spray tips are recommended with orifice sizes of 0.018 to 0.035 inches. Adjust outbound pressure between 2,000 to 3,000 psi (13.8 to 20 MPa) to obtain a suitable spray pattern.

Conventional Spray

Use a conventional pressure pot with 3/8" fluid line (maximum 30 feet length) or 1/2 inch ID fluid line when spraying at heights or where 50 feet hose length is required. For high volume applications or long hoses, a 4:1 or 8:1 ratio pump can be used to provide material to the spray gun.

Brush or Roll

Application may require an additional coat to obtain recommended film thickness.

Thinning

None required. DO NOT THIN.

Handling Properties

Working Time	380 Primer	322 Flakeline
50°F (10°C)	60 min.	45 min.
70°F (21°C)	45 min.	25 min.
90°F (32°C)	20 min.	15 min.



Recoat	380 Primer	322 Flakeline
50°F (10°C)	5 hrs	8 hrs
70°F (21°C)	2 hrs	3 hrs
90°F (32°C)	1 hrs	2 hrs

Time to Place in Service	
50°F (10°C)	48 hrs.
70°F (21°C)	24 hrs.
90°F (32°C)	16 hrs.

Coverage

CEILCOTE 380 Primer
concrete 160 - 200 ft²/gal (3.9-4.9 m²/liter)
(with C-1 Powder) approx. 140 - 160 ft²/gal
steel 250 - 300 ft²/gal (6-7.2m²/liter)
CEILCOTE 322 Flakeline
50 - 60 ft²/gal (1.2 to 1.46 m²/liter)

Packaging

The following standard packages are available:
CEILCOTE 380 Primer 1, 5, 30 gal units (3.79, 18.92, 113.55 liter units)
CEILCOTE 322 Flakeline 5 gal unit (18.92 liter units)

Storage

Store in a cool, dry and covered location away from fire hazards and direct sunlight. Minimum shelf life* at 70°F (21°C) for products indicated below:

CEILCOTE 380 Primer 6 months
CEILCOTE 322 Flakeline 6 months

Higher temperatures will shorten the shelf life of these products. The packing drums are to be kept tightly sealed and are to be resealed each time materials have been removed. All liquid products are to be stored in a frost-free place.

Safety

Store in cool, dry area [50° - 90° F (10° - 32° C)] away from direct sunlight, flame or other hazards.

CEILCOTE 322 Flakeline contains vinyl ester resins and cumene peroxide catalyst. The product's components have been formulated to optimize physical characteristics such as filling capacity, abrasion, moisture and chemical resistance while minimizing hazardous physical and health factors encountered during application. A concerted effort is made to be aware of the latest chemical toxicological information and to apply this knowledge in a responsible manner to insure product safety.

During application of CEILCOTE 322 Flakeline materials, always wear gloves and appropriate work clothing to minimize contact. Ventilation is required with special consideration for enclosed or confined areas. Air movement must be designed to insure turnover at all locations in work area and adjacent areas to avoid buildup of heavy vapors. Use caution when handling flammable liquids, eliminate sources of ignition from work area and containers with residues.

Observe safe storage practices by separating resins from hardeners, by keeping solvents in a cool area, free of sources of ignitions.

Product Material Safety Data Sheets are available and should be consulted when handling products. These products are for industrial and professional use only; application directions must be followed.

Maintenance

Periodically inspect the applied material and repair localized areas as needed. Consult your CEILCOTE representative for additional information.

Technical and Physical Data

	Test Standard	Unit	Value
Generic Type			Vinyl ester
Viscosity - mixed	ASTM D 2393	cps	1,400 – 1,800 @ 77 °F
Density (wt. per gal)	ASTM D 1475	lbs/gal (kg/liter)	10. + 0.2 (1.2+ 0.09)
Service Temperature Limits	Immersion/Condensing Fumes Dry/Noncondensing Fumes	°F (°C)	120 (49) 250 (121)
Shelf Life		Months	6 @ 70 °F (21 °C)
Volatile Organic Compounds	EPA Method 24	lbs/gal (g/l)	3.206 (384.771)
Flash Point	Pensky Martens Closed Cup	°F (°C)	84 (29)

Important Note

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 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 International Paint representative that this data sheet is current prior to using the product.

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