

PRODUCT DESCRIPTION

Generic: Two-Component Epoxy

General Description: A high solids two-component, high performance two coat catalyzed chemical resistant modified epoxy novolac lining system resistant to a wide range of chemicals and solvents. Provides exceptional resistance over a wide range of temperatures and pressures.

Typical Uses: DEVCHEM 257 lining is ideal for industrial storage tanks, process vessels and pipeline interiors in high pressure environments. Also may be used as a chemical barrier coating in corrosive environments as well as under insulation.

SPECIFICATION DATA

Color: Intermediate White (257K3620), Buff (257K1470)

Finish: Semi-Gloss

Reduction Solvent: T-10 Thinner

Clean-up Solvent: T-10 Thinner

Weight/Gallon: 12.9 lbs./gal.(1.55 kg/L)

VOC (EPA 24): 1.82 lbs./gal.(218 g/L)

Thinned 5% with T-10 thinner <2.08 lbs./gal. (250g/L)

Solids By Volume (ASTM 2697-7 days): 74% ± 2%

Theoretical Coverage at 1.0 Mil (25 microns) Dry:

1187 sq. ft./gal. (29.1 m²/L)

Recommended Film Thickness: Two Coat System

5.0-6.0 mils (125-150 microns) dry – 6.8-8.1 mils (169- 203 microns) wet. Maximum dry film thickness is 18 mils (450 microns).

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.

Minimum Dry Time (ASTM D 1640): At 5 mils (125 microns) DFT

Substrate Temperature	60°F(15°C)	77°F(25°C)	95°F(35°C)
Self Recoat			
Minimum	24 hours	10 hours	5 hours
Maximum	15 days	10 days	6 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 24 months at 77°F (25°C) – unopened

Mix Ratio By Volume: 4 (base): 1 (converter) – see mixing instructions.

Induction: 15 minutes at 77°F (25°C) – see mixing instructions.

Pot Life: 4 hours @ 77°F (25°C) & 50% R.H.

FEATURES

Advantages:

- Exceptional resistance to a wide variety of chemicals and solvents
- Does not require baking to cure
- Cost-effective two coat system
- Extremely applicator friendly
- High solids two coat system
- Does not contain MDA or DEMDA
- May be force cured for quick turn around

Limitations of Use: Exterior exposure will cause color change, early dulling and loss of gloss, but this does not affect the protective properties of the coating.

Not recommended for immersion in organic or mineral acids.

PERFORMANCE DATA

Adhesion: (ASTM D 4541) – Excellent

Abrasion Resistance: (ASTM D 4060) – Excellent

Humidity Resistance: (ASTM D 4585) – Excellent

Impact Resistance: (ASTM D 2794) – Very Good

Chemical and Solvent Resistance: (ASTM D 1308) – Excellent

Elongation: (ASTM D 522 Method B) – Very Good

Service Temperature Limits: 250°F (121°C) dry

Hardness: (ASTM D 3363), 7 day cure @ 77°F (25°C) – 6H

Water Immersion: (ASTM D 870 Modified) –180 F Tap Water –Excellent

Salt Spray Resistance: (ASTM B 117) – 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-Sa2 1/2 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 apposed 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-Sa2 1/2.

DIRECTIONS FOR USE

Tinting: Do not tint.

Thinning: Thinning is not normally required or desirable. However, at lower temperatures, small amounts (5% or less) of T-10 thinner can be added to the mixed components depending on local VOC and air quality regulations. Any solvent addition should be made after the two components are thoroughly mixed. Higher temperatures will reduce working life of the coating; lower temperatures will increase it.

Mixing: DEVCHEM® 257 lining is a two-component product supplied in 5 gallon or 1 gallon kits which contain the proper ratio of ingredients. The entire contents of each container must be mixed together. Stir the base portion first to obtain a smooth, homogeneous condition. After mixing the base portion, add the converter slowly with continued agitation. After the converter add is complete, continue to mix slowly until the system is homogeneous. Avoid storing or placing containers in direct sunlight.

Application: DEVCHEM 257 lining should be applied only by air or airless spray. Brushing can be used for touch up or striping. Brushing may require multiple coats to achieve correct film thickness and/or hiding. Do not use rollers. For air spray, use agitated spray pots, 1/2" ID air hoses and 1/2" fluid hose. A professional grade gun with .070 or larger tip and needle and a air cap with good break-up is recommended. For airless spray application, use 100 psi air pressure, 3/8" ID fluid hoses not exceeding 100 feet in length, a 30 to 1 or larger heavy duty air assisted airless pump and .021" to .025" range tip sizes.

Ventilation: It is very important for the safety of the applicator and the proper performance of the DEVCHEM 257 lining that good ventilation be provided to all portions of the enclosed area. Recommended tank ventilation involves two important phases. Phase one is to pump fresh, dehumidified air into all areas of the tank, especially "dead air" areas. Phase two is to exhaust, via an explosion proof exhaust fan, the solvent vapors from the lowest portion of the tank. This practice of pumping fresh air into the tank and exhausting solvent vapors out of the lowest part of the tank should be provided throughout the application and curing processes. This practice is to insure that all solvents are removed from the coating. Tanks must be cured 7 days at 77°F (25°C) with ventilation before being put into service. At lower temperatures, longer cure times are required.

Coating System: Two stripe coats on all sharp edges, cutouts and welds. Two coats of DEVCHEM 257 lining at 5-6 mils (125-150 microns) per coat. Use contrasting colors for each coat and stripe coat. **Note:** The maximum dry film thickness of the DEVCHEM 257 system is 18 mils (450 microns). Dry film thickness above 18 mils (450 microns) could reduce the service life of the coating. Cure to put tank into service: 7 days with ventilation at 77°F (25°C) for maximum chemical resistance. If forced heat cure is desired, contact your ICI Paints Representative.

Dry Time (ASTM D 1640): At 77°F (25°C) & 50% R.H., dries to recoat in 10 hours and dry hard in 15-20 hours.

Clean-up: Use T-10 thinner.

PRECAUTIONS

DANGER! COMBUSTIBLE LIQUID AND VAPOR. CORROSIVE. CAUSES EYE AND SKIN BURNS. HARMFUL OR FATAL IF SWALLOWED. ASPIRATION HAZARD - CAN ENTER LUNGS AND CAUSE DAMAGE. HARMFUL IF INHALED. MAY CAUSE CENTRAL NERVOUS SYSTEM EFFECTS, INCLUDING DIZZINESS, HEADACHE OR NAUSEA. CAUSES RESPIRATORY TRACT IRRITATION. MAY CAUSE ALLERGIC SKIN AND RESPIRATORY REACTION. OVEREXPOSURE MAY CAUSE LIVER, KIDNEY DAMAGE. USE ONLY WITH ADEQUATE VENTILATION. KEEP OUT OF THE REACH OF CHILDREN. NOTICE: Products in this series contain solvents. Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal. 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.** Keep away from heat, sparks and flame. **Do not** smoke. Vapors may ignite. Extinguish all flames, burners, stoves, heaters and pilot lights and disconnect all electrical motors and appliances before use and until all vapors are gone. Prevent build-up of vapors by opening all windows and doors to achieve cross-ventilation. If sanding, 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:** For skin contact, wash thoroughly with soap and water. If any product remains, gently rub with petroleum jelly, vegetable or mineral/baby oil then wash again with soap and water. Repeat as needed. Remove contaminated clothing. For eye contact, flush immediately with plenty of water for at least 15 minutes. **Get medical attention.** If swallowed, **get medical attention immediately.** If inhalation causes discomfort, remove to fresh air. If discomfort persists or breathing difficulty occurs, get medical attention. **KEEP FROM FREEZING.**

DS273-0806

SHIPPING

Flash Point: 100°F (38°C)
Packaging: 1 gallon kit (3.785L) 5 gallon kit (18.925L)
 0.80 gallon base 4.0 gallon base
 0.20 gallon converter 1.0 gallon converter

Shipping Weight: 4 - 1 gallon kits - 60 lbs. (27.2 kg)
 5 gallon kit - 71 lbs. (32.2 kg)

257 (05/07)
 Ad Stock #68647E



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