Protecto-Crete 140T BC

PRODUCT DATA SHEET

SELECTION & SPECIFICATION DATA

Generic Type	Trowel-Applied Novolac Epoxy Topping and Resurfacer
Description	A heavy duty novolac epoxy mortar used for high-impact protection and slope to drain in chemical processing areas.
Features	• Low Odor • VOC Compliant • Can be used for Coving, Pitch and Curb Construction • 100% Solids
Typical Uses	• Pulp and Paper Mills • Dike Areas • Chemical Storage • Pickling Room Floors • Truck Unloading Platforms • Warehouse Floors • Aisleways • 98% Sulfuric Acid Containment
Primer	Concrete **must** be primed to aid in the “wetting out” required for good bonding. Use Primer 67 series or other primer recommended by Dudick or Carboline technical service.
Recommended Thickness	3/16" (4.8mm)
Solids Content	By Volume 100%
Coverage Rate	1604 ft²/gal at 1.0 mils (39.4 m²/l at 25 microns) 9 ft²/gal at 3/16" (0.2 m²/l at 4.8 mm) Allow for loss in mixing and application.
Dry Temp. Resistance	Continuous: 150°F (66°C) Non-Continuous: 200°F (93°C)
Chemical Resistance	• Salts • Dilute Inorganic Acids • Oils • Sulfuric Acid 98% • Alkaline Solutions • Solvents

SUBSTRATES & SURFACE PREPARATION

Concrete

Concrete must be prepared mechanically to remove surface laitance. Oils, grease and other contaminant must be removed prior to surface preparation. Concrete must be free of curing compounds and form release agents. Surface texture should be similar to 40-60 grit sandpaper or the visual standard, CSP-5 or greater from the International Concrete Repair Institute with exposed pea gravel. The prepared surface should have a nominal tensile strength of 250 PSI per ASTM D7243.
All concrete substrates must be checked for moisture prior to primer application using the Plastic Sheet Test per ASTM D4263.

Additional surface preparation will be required if a 40-60 grit texture with exposed pea gravel is not achieved and the surface laitance not completely removed with the first mechanical preparation procedure.

PERFORMANCE DATA

All test data was generated under laboratory conditions. Field testing results may vary.

Test Method	Results
Compressive Strength (ASTM C579)	5,000-6,000 PSI (34.5-41..4 MPa)
Flexural Strength (ASTM C580)	2,200-2,400 PSI (15.1-16.5 MPa)
Taber Abrasion* (ASTM D4060)	60 mg
Tensile Bond Strength (ASTM D7234)	Cohesive Failure of Concrete
Tensile Strength (ASTM C307)	1,500-1,600 PSI (10.3-11 MPa)

*CS-17 Wheel, 1,000 Revolutions

MIXING & THINNING

Mixing

Protecto-Crete 140T BC should be mixed in a concrete mixer. The liquids must be thoroughly blended before adding the aggregate. Mechanically premix premeasured Part A & B thoroughly for 1-2 minutes before adding to mixer.
Gradually add four (4) bags of EA-1 aggregate and mix 2-3 minutes or until a uniform consistency is achieved. For the first batch, use only 3 1/2 bags to allow the mixer to wet-out.

Do not attempt to store mixed material. Residual material should be properly disposed of at the end of each work period.

Ratio

2.2:1 (A:B by volume)

Pot Life

50-60 minutes @ 50ºF (10ºC)
20-30 minutes @ 75ºF (24ºC)
10-15 minutes @ 90ºF (32ºC)

APPLICATION PROCEDURES

Application

Hand trowel applications: Pour the mixed Protecto-Crete 140T BC into a wheelbarrow and transport to each work area. Dump directly onto the primed concrete for hand trowel applications. Use a wooden straight edge to initially distribute the material, and finish tightly using steel trowels.

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Power trowel applications: the mix should be spread with a screed box to evenly distribute the material in rows. It is preferred to screed out over wet primer.
For optimum results, finish the topping with a 48 - 52 inch power trowel within 10-20 minutes of placement. Over-trowelling can lead to blistering and excessive burnishing. Final finishing using a hover trowel (if available) can achieve an extremely smooth and tightly closed surface. Workmen must wear spiked shoes to avoid depressions while power-trowelling.
The power and hand trowel blades should be cleaned periodically to remove resin buildup.

To terminate work, square cut the topping and start the next work period butting to this edge. Permanent terminating edges should be beveled into saw cuts in the concrete.
Always use appropriate lighting to detect “chatter” marks and trowel mark defects.
Allow the product to cure overnight at 75ºF (23ºC). Hand or power sand to remove tool marks and debris.

APPLICATION CONDITIONS

Condition	Material	Surface	Ambient	Humidity
Minimum	60°F (16°C)	50°F (10°C)	50°F (10°C)	0%
Maximum	80°F (27°C)	110°F (43°C)	110°F (43°C)	90%

Substrate temperature must be 5ºF (3ºC) above the dew point.
Application in direct sunlight may lead to blistering, pinholes, or wrinkling due to out-gassing of air in the concrete and high substrate temperatures. Double priming, shading or evening application may be required. Consult a Dudick representative.

CURING SCHEDULE

Surface Temp.	Cure Time
50°F (10°C)	72 Hours
75°F (24°C)	24 Hours
90°F (32°C)	20 Hours

CLEANUP & SAFETY

Cleanup Use S-10 Cleaning Solvent to clean tools and equipment.

Safety Read and follow all caution statements on this product data sheet and on the SDS. Employ normal safety precautions. Keep container closed when not in use.

Ventilation Ventilation must be used during and after application until the coating is cured. The ventilation system should be capable of preventing the solvent vapor concentration from reaching the lower explosion limit for the solvents used. User should test and monitor exposure levels to insure all personnel are below guidelines. Use MSHA/NIOSH approved air respirators as needed.

Caution Fire and explosion hazards: This product contains less than 1% volatile components, however, vapors are heavier than air and can travel long distances, ignite and flash back. Eliminate all Ignitions sources. Keep away from sparks and open flames. All electrical equipment and installations should be made and grounded in accordance with the National Electric Code. In areas where explosion hazards exist, workers should be required to use non-ferrous tools and wear conductive and non-sparking shoes.

PACKAGING, HANDLING & STORAGE

Packaging	**12 Gallon Kits:** Part A: 1.85 Gallons (in a 3.5 gal plastic pail) Part B: 0.85 Gallons (in a 3.5 gal plastic pail) Aggregate: 4 x 50 lb (23 kg) bags EA-1 Filler Yields approximately 12 mixed gallons
Shelf Life	Part A and Part B: 12 months EA-1 Aggregate: 36 months When stored in their original, unopened containers at 50°F-75°F (10°C-24°C). Storage in direct sunlight or excessive heat will reduce working time and shelf life.
Storage	Warning: All Dudick products classified with DOT labels as either white, yellow or red labels must not be mixed or stored together as an explosive reaction can occur. All products should be stored in a cool, dry area away from open flames, sparks or other hazards.
Shipping Weight (Approximate)	12 gallon kit: 230.9 lbs (104.7 kg)

WARRANTY

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