ARCOR
EPOXY TECHNOLOGIES

Product Data Sheet

REVISED 01/2024

ARCOR® TC-1100

GENERIC TYPE: AMINE CURED 100% SOLIDS EPOXY INTERNAL TUBE COATING

DESCRIPTION AND RECOMMENDED USES: ARCOR® TC-1100 is a solvent free, ceramic filled high functionality epoxy Novolac coating designed for coating internals of heat exchanger/chiller/condenser tubes. TC-1100 is excellent in all waters, salt, brackish, chlorine treated ect.. TC-1100 is also suitable in aggressive chemical environments, elevated temperatures and abrasion. ARCOR® TC-1100 produces a tough, chemical resistant coating on ferrous and non-ferrous metals and concrete. Use of Reactive Flexibilizing agents gives excellent flexibility without sacrificing chemical & temperature resistance making TC-1100 ideal for withstanding tube thermal expansion/contraction and vibrations. Novolac ARCOR® TC-1100 is suitable for hand or spray application at up to 5 mils per coat.

FOR INDUSTRIAL USE ONLY

SPECIFICATION DATA

TEMPERATURE: Immersion service
Max.210ºF (100ºC); Spike to 300ºF(150ºC) (3 Hrs).

CHEMICAL RESISTANCE:

Water:	Excellent
Alkalies:	Excellent
Inorganic Acids:	Excellent
Organic Acids:	Excellent
Organic Solvents:	Excellent

ABRASION: Very Good

FILM THICKNESS: 3-5 mils (50-125 microns)/coat
Recommended for Immersion: 1-3 coats

Flexibility: Very Good

APPLICATIONS:
All Down-Tube Coating Applications

SOLIDS BY VOLUME: 100%

VISCOSITY: 10,000-18,000 cps

POT LIFE: 25 MIN/KG @ 72ºF

MIX RATIO: 2:1 by Volume (Base: Activator)
100 gm: 36 gm by weight

COLOR: Gray, Light Gray, Gun-Metal Blue, Red

SHELF LIFE: 5 Years at 55-95ºF (13-35ºC)

COVERAGE: 9.85 M^2 / Liter @ 100 microns

WEIGHT PER GALLON: 11.0 lbs (5.0 KG, 231 cu.in.)

ORDER INFORMATION: To place orders and/or obtain pricing information contact:

ARCOR Epoxy Inc. 28 Jonathan Bourne Dr.
Pocasset, MA 02559
TEL: 508-385-5598; Sales@NovolacEpoxy.com

The manufacturer makes no warranty either expressed or implied including warranties of merchantability or fitness for a particular purpose for this product. Under no circumstance will the manufacturer be liable for incidental, consequential or other damages, breach of warranty, strict liability, or any other theory arising out of use of this product.

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SEE MATERIAL SAFETY DATA SHEET BEFORE HANDLING THIS PRODUCT

SURFACE PREPARATION:
Interior surfaces are to be abrasive blasted with chloride free abrasive such as Aluminum Oxide, Garnet to SSPC SP-10 Near-White metal 1 to 2 mil profile. TC-1100 is self-priming. It is advised that all tubes be thoroughly flushed with clean water to clean and neutralize, then dried, prior to abrasive blasting. TC-7200 can be used as a primer for aggressive applications.

MIXING:
Thoroughly mix Activator into Base with mixing stick or drill with low-speed mixing blade scraping sides and bottom of container or mixing board. Mix by Volume 2 parts Base to 1 part Activator. Or by weight 100 grams base to 36 grams activator. Mix thoroughly to produce an even colored and streak-free material.

THINNING: Never thin.

APPLICATION:
Brush: medium to stiff bristle of sufficient quality that bristles do not pull out and stick in coating. Trim or tape to <1" nap.
Roller: good quality 1/8" nap.
Plural Spray: .015-.021 tip, 3,500-4,500 PSI, Heat to 150ºF Base, 100ºF Activator. Use 30 mesh screens. Heated hose @ 120-140ºF.
Airless Spray: .017-.025 tip, 4,000-4,500 PSI (45:1). Use only with in-line heater at 120º to 140ºF.(Caution: Short Pot-Life)
Conventional Spray: Not Recommended.
All spray equipment should employ traps to prevent water and oil from contaminating coating and 30 mesh screens to prevent particulate contamination.

APPLICATION TEMPERATURE:
Material: Keep between 55 to 95ºF(17 to 35ºC). Substrate: Keep between 45 to 105ºF(7 to 40ºC). The difference in temperature of the substrate and the material should never exceed 10ºF(5ºC). Substrate shall be a minimum of 5ºF(3ºC) above dew point. Do not apply if relative humidity exceeds 90%. If necessary, heat metal prior to surface preparation using electric heater or heat lamp. Never use gas, oil or kerosene heaters as they will leave a greasy residue on metal surface. For best results keep all material in warm area overnight (75ºF+, 24ºC) for ease of mixing. If necessary, base component of material can be heated by microwave for 30-45 seconds for a 1 KG Base unit or by warm water bath. Heat activator by warm water bath only. If necessary, let material cool before application.

OVERCOAT/CURE TIME: By brush, roller or squeegee recoat while material is still soft, but tack-free, between 6-14 hours at 77ºF(25ºC). If the overcoat window is exceeded abrade surface with course sandpaper, grinder or brush blast. By spray application recoat between 2-14 hours at 77ºF. Full cure before immersion 72 hours at 77ºF. Add 30 hours additional cure time for each 10ºF below 77ºF. Subtract 12 hours of cure time for each 10ºF above 77ºF. Force Cure with heat for best performance for 4 hours at 200ºF(93ºC), 12 hours at 150ºF(66ºC).

CLEAN UP: Clean tools immediately after use with M.E.K. or similar. 98% Isopropyl Alcohol can be used in solvent restricted areas.

WARNING: Base contains epoxy resin. Activator contains alkaline amines, a strong sensitizer. May cause skin irritation, sensitization or other allergic responses. Use with good ventilation, particularly if heated or sprayed. Prevent all contact with skin or eyes. Wear protective clothing, goggles, gloves or barrier creams. Keep containers closed when not in use. Wash thoroughly after handling. In case of skin contact immediately wash with soap and water. In case of eye contact, flush with water for 15 minutes. If irritation persists seek medical attention.