



CHEMBLOC SERIES 239SC

PRODUCT PROFILE

GENERIC DESCRIPTION Modified Novolac Polyamine Epoxy

COMMON USAGE A highly chemical resistant, multi-purpose resin for fiberglass reinforced mat (65 mils) or mortar/fiberglass reinforced mat (125 mils) secondary containment systems. Protects against harsh chemicals, thermal cycling, impact and abrasion.

COLORS 00GR Gray. Color may not be uniform and is not intended to be finish coat—see Topcoats listed below.
Note: Epoxies chalk and yellow with age, extended exposure to UV and artificial lighting. Lack of ventilation, incomplete mixing, miscatalyzation or the use of heaters that emit carbon dioxide and carbon monoxide during application and initial stages of curing may cause amine blush, possibly affecting adhesion of subsequent topcoats. Epoxies will stain with extended exposure to certain acids. As a result, darker colors are recommended.

COATING SYSTEM

SURFACER/FILLER/PATCHER Series 215, 218. **Note:** A repair kit of 201, with Part C fumed silica, is available for small patching/surfacing repairs (reference Technical Bulletin 99-22). For more extensive repairs and additional information, contact your Tnemec representative or Tnemec Technical Services.

PRIMERS Self-priming, 201, 208, 241

FLEXIBLE BASECOAT Series 206SC (optional replacement for Series 237SC and 239SC mortar/slurry basecoat). Reference the appropriate product data sheet for additional information.

TOPCOATS Series 120-5001, 280, 282, 252SC. **Note:** A saturant coat of 239SC liquids is required over fiberglass mat prior to application of topcoat.

SURFACE PREPARATION

Prepare surfaces by method suitable for exposure and service. Refer to the appropriate primer data sheet for specific recommendations. When self priming:

CONCRETE Allow new poured-in-place concrete to cure a minimum of 28 days at 75°F (24°C). Verify concrete dryness in accordance with ASTM F 1869 “Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride” (moisture vapor transmission should not exceed three pounds per 1,000 square feet in a 24 hour period), F 2170 “Standard Test Method for Determining Relative Humidity in Concrete using in situ Probes” (relative humidity should not exceed 80%), or D 4263 “Standard Test Method for Indicating Moisture in Concrete by the Plastic Sheet Method” (no moisture present). **Note:** The testing listed above cannot guarantee avoidance of future moisture related problems particularly with existing concrete slabs. This is especially true if the use of an under slab moisture vapor barrier cannot be confirmed or concrete contamination from oils, chemical spills, unreacted silicates, chlorides or Alkali Silica Reaction (ASR) is suspected.

Prepare concrete surfaces in accordance with NACE No. 6/SSPC-SP13 Joint Surface Preparation Standards and ICRI Technical Guidelines. Abrasive blast, shot-blast, water jet or mechanically abrade concrete surfaces to remove laitance, curing compounds, hardeners, sealers and other contaminants and to provide a minimum ICRI-CSP 3 or greater surface profile. Large cracks, voids and other surface imperfections should be filled with a recommended filler or surfacer. **Note:** For moisture content exceeding 3 lbs per 1,000 sq ft or relative humidity in excess of 80%, Series 208 or 241 may be substituted for the primer. Refer to the Series 208 or 241 product data sheet for more information.

ALL SURFACES Must be clean, dry and free of oil, grease and other contaminants.

TECHNICAL DATA

VOLUME SOLIDS 100% (mixed)

RECOMMENDED DFT **Primer:** 4.0 to 12.0 (100-305 microns) per coat.
Resinous Basecoat: 6.0 to 12.0 mils (150-305 microns).
Mortar/Slurry Basecoat: 60 to 80 mils.
Saturant: 8.0 to 12.0 mils (200-305 microns).

CURING TIME	Temperature	To Topcoat	Place in Service	Full Cure
	75°F (24°C)	8 to 24 hours	24 hours	5 days

If more than 24 hours have elapsed between coats, the ChemBloc coated surface must be mechanically abraded before topcoating. **Note:** A 24 hour cure provides for traffic, secondary containment and certain mild chemical exposures. Up to five days cure is required for certain severe chemical exposures. Contact your Tnemec representative or Tnemec Technical Services.

VOLATILE ORGANIC COMPOUNDS **Unthinned:** 0.13 lbs/gallon (16 grams/litre)
Thinned 10%: 0.78 lbs/gallon (93 grams/litre)

HAPS **Unthinned:** 0.0 lbs/gal solids
Thinned 10%: 0.7 lbs/gal solids

THEORETICAL COVERAGE 1,604 mil sq ft/gal (39.4 m²/L at 25 microns). See APPLICATION for coverage rates.

NUMBER OF COMPONENTS Resin Containment Kit (RCK)—Two: Part A (epoxy) and Part B (amine)
Mortar Containment Kit (MCK)—Three: Parts A (epoxy), B (amine) and C (aggregate)

PACKAGING	PART A	PART B	PART C	Yield (mixed)
RCK	1-1 gallon can	1-1/2 gallon can	N/A	1.5 gallons
MCK	1-1 gallon can	1-1/2 gallon can	1-30 lb bag	3 gallons

Note: The fiberglass reinforcing mat (S211-0215) is calculated per sq ft based on a 38 in x 500 ft (1,500 sq ft) roll and is available in full rolls only. (Sold separately for both kit sizes.)

NET WEIGHT PER GALLON 9.30 ± 0.25 lbs (4.22 ± .11 kg) (Parts A & B mixed)

CHEMBLOC | SERIES 239SC

STORAGE TEMPERATURE Minimum 50°F (10°C) Maximum 90°F (32°C)
 Material should be stored at temperatures between 70°F and 90°F (21°C and 32°C) for at least 48 hours prior to use.

TEMPERATURE RESISTANCE (Dry) Continuous 300°F (149°C) Intermittent 325°F (163°C)

SHelf LIFE 12 months at recommended storage temperature.

FLASH POINT - SETA N/A

HEALTH & SAFETY This product contains chemical ingredients which are considered hazardous. Read container label warning and Material Safety Data Sheet for important health and safety information prior to the use of this product.
Keep out of the reach of children.

APPLICATION

COVERAGE RATES Before commencing, obtain and thoroughly read the Secondary Containment Installation and Application Guide.

	Dry Mils (Microns)	Wet Mils (Microns)	Sq Ft/Kit (m ² /Kit)
Primer (RCK)	4.0-12.0 (100-305)	4.0-12.0 (100-305)	201-602 (18.6-55.9)
Resinous Basecoat (RCK)	6.0-12.0 (150-305)	6.0-12.0 (150-305)	201-401 (18.6-37.3)
Mortar/Slurry Basecoat (MCK) †	60.0-80.0 (1525-2030)	60.0-80.0 (1525-2030)	61-81 (5.6-7.5)
Saturant Coat (RCK)	8.0-12.0 (205-305)	8.0-12.0 (205-305)	201-301 (18.6-27.9)

† Coverage rates are based on the addition of the entire Part C filler. **Note:** Coverage rates will vary depending on vertical or horizontal applications.

MIXING Use a variable speed drill with a box blade. Slowly mix Part A component, and while under agitation add Part B component and mix for a minimum of two minutes. Ensure that all Part B is blended with Part A by scraping the pail walls with a flexible spatula. **Note:** A large volume of material will set up quickly if not applied or reduced in volume. **Caution: Do not reseat mixed material. An explosion hazard may be created.**
Mortar/Slurry Basecoat: If a filled basecoat mortar is required, slowly add one 30 lb bag of Part C filler (S211-0214) to mixed liquids until all the Part C filler is thoroughly blended. The yield will be approximately 3 gallons. For filled basecoat slurry, the Part C filler can be reduced by approximately 8 lbs or 25%.

THINNING Normally not required. Saturant coat may be thinned up to 10% with No. 2 Thinner.

POT LIFE 30 to 35 minutes at 75°F (24°C)
 Increasing material temperatures will significantly reduce the pot life.

APPLICATION **Primer:** 4.0 to 12.0 dry mils (100-305 microns), 4.0-12.0 wet mils (100-305 microns), 201-602 sq ft/gal (18.6-55.9 m²).
Fiberglass Mat Reinforced Application (RCK): Uniformly roller apply the mixed liquids (Parts A and B) at a rate of 6.0-12.0 mils or a rate of 201-401 sq ft/kit (18.6-37.3 m²).
Mortar/Fiberglass Mat Reinforced Application (MCK): Uniformly trowel apply the mixed Part A and Part B liquids and Part C filler (S211-0214) at a rate of approximately 60-80 mils or 61-81 sq ft/kit (5.6-7.5 m²), leaving a smooth, even finish.
Reinforcement and Saturant: While the basecoat is still wet, lay and press the fiberglass reinforcing mat (S211-0215) into the surface. Using a rib roller, backroll fiberglass to remove any air pockets. Once mat is placed, immediately saturate mat with Series 239SC saturant coat (approximately 8.0 to 12.0 mils or 201-301 sq ft/kit) until fiberglass mat is completely wet out. **Caution: When applied vertically the saturant coat should be applied at a thickness to only wet out the fiberglass mat. Any attempt to build a film on top of the mat may result in sags and runs.**

APPLICATION EQUIPMENT **Primer, Resinous Basecoat and Saturant:** Brush, roller, squeegee. Brush small areas only. A rib roller or broad knife should be used to press and embed fiberglass reinforcing mat in both the resin and aggregate filled basecoat.
Mortar/Slurry Basecoat: Squeegee, trowel, loop roller.
Note: For detailed instructions, refer to the Secondary Containment Installation and Application Guide.

SURFACE TEMPERATURE Minimum of 55°F (13°C), optimum 65°F to 80°F (18°C to 27°C), maximum of 90°F (32°C). The substrate temperature should be at least 5°F (3°C) above the dew point. Coating will not cure below minimum surface temperature. To avoid outgassing, concrete temperature should be stabilized or in a descending temperature mode. Material should not be applied in direct sunlight.

MATERIAL TEMPERATURE For optimum application, handling and performance, the material temperature during application should be between 70°F and 90°F (21°C and 32°C). Temperature will affect the workability. Cool temperatures increase viscosity and decrease workability. Warm temperatures will decrease viscosity and shorten pot life.

CLEANUP Flush and clean all equipment immediately after use with xylene or MEK.

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