

ABRASION

METHOD: ASTM D 4060, (CS-17 Wheel, 1000 gram load).
SYSTEM: Series 239SC ChemBloc cured seven days at 75°F (24°C).
REQUIREMENT: No more than 72 mg loss, average of three tests.

ADHESION

METHOD: ASTM D 4541.
SYSTEM: Series 201 Epoxoprime/Series 239SC ChemBloc applied to concrete and cured seven days at 75°F (24°C).
REQUIREMENT: 400 psi (2.8 MPa) pull-off strength, average of three tests.
NOTE: 100% concrete failure.

CHEMICAL IMMERSION

METHOD: Immersion at 75°F (24°C) in accordance with NACE TM-01-74, Procedure B.
SYSTEM: Two coat system 239SC/282 ChemBloc applied to SSPC-SP10/NACE No. 2 Near-White Metal Blast Cleaned steel and cured seven days at 75°F (24°C).
REQUIREMENT: No blistering, cracking, rusting or delamination of film after 72 hours continuous contact with chemical. Check with your Tnemec representative for further chemical resistance information.

Reagents:

Aluminum Chloride	Hydrogen Peroxide 30%
Ammonium Hydroxide 5-50%	Bromine 5%
Calcium Hypochlorite 5%	Potassium Permanganate
Phosphoric Acid 10-85%	Sodium Hydroxide 10-50%
Citric Acid 5-50%	Sulfuric Acid 10-80%
Methanol	Ferric Chloride 5-43%
Sodium Fluoride	Sodium Silicofluoride

COMPRESSIVE STRENGTH

METHOD: ASTM C 579.
SYSTEM: Series 239SC ChemBloc cured 30 days at 75°F (24°C).
REQUIREMENT: Not less than 11,195 psi (77.19 MPa) compressive strength, average of six tests.

FLEXURAL STRENGTH

METHOD: ASTM D 790.
SYSTEM: Series 239SC ChemBloc cured 14 days at 75°F (24°C).
REQUIREMENT: Not less than 6,270 psi (43.23 MPa) flexural strength and 323,900 psi (2,233 MPa) flexural modulus of elasticity, average of five tests.

HARDNESS

METHOD: ASTM D 2240.
SYSTEM: Series 239SC ChemBloc cured 30 days at 75°F (24°C).
REQUIREMENT: Not less than a Shore Type D hardness of 80, average of five tests.

IMPACT

METHOD: MIL D 3134 (modified using 2.5 lb steel ball).
SYSTEM: Series 201 Epoxoprime/Series 239SC ChemBloc cured 14 days at 75°F (24°C).
REQUIREMENT: No more than 1/16" permanent indentation. No cracking, checking or delamination of film after 240 in-lb (27 J) direct impact average of three tests.

ChemBloc | SERIES 239SC

RATE OF BURNING

METHOD:	ASTM D 635.
SYSTEM:	Series 239SC ChemBloc cured 14 days at 75°F (24°C).
REQUIREMENT:	Flame front does not reach or pass 25 mm mark on 10 tests (self-extinguishing).

SHRINKAGE

METHOD:	ASTM C 531.
SYSTEM:	Series 239SC ChemBloc cured 14 days at 75°F (24°C).
REQUIREMENT:	No more than 0.0002% linear shrinkage, average of four tests.

TENSILE STRENGTH

METHOD:	ASTM C 307.
SYSTEM:	Series 239SC ChemBloc cured 14 days at 75°F (24°C).
REQUIREMENT:	No less than 2,650 psi (18.27 MPa) tensile strength average of six tests.
METHOD:	ASTM D 638.
SYSTEM:	Series 239SC ChemBloc cured 14 days at 75°F (24°C).
REQUIREMENT:	No less than 7,913 psi (54.56 MPa) tensile strength, 222,975 psi (1,537 MPa) tensile modulus of elasticity and 6.14% elongation at break.

THERMAL EXPANSION

METHOD:	ASTM C 531.
SYSTEM:	Series 239SC ChemBloc cured 14 days at 75°F (24°C).
REQUIREMENT:	No more than 1.97E-05 linear coefficient of thermal expansion per °F, average of four tests.

WATER ABSORPTION

METHOD:	ASTM C 413.
SYSTEM:	Series 239SC ChemBloc cured 30 days at 75°F (24°C).
REQUIREMENT:	No more than 0.39% water absorption, average of three tests.

This product will meet or exceed the above test requirements established for the coating systems listed. Test performance results were obtained in a controlled environment and Tnemec Company makes no claim that these tests or any other tests accurately represent all environments. As application, environmental and design factors can vary significantly, due care should be exercised in the selection and use of the coating. Published technical data is subject to change without notice. The online catalog at www.tnemec.com should be referenced for the most current technical data and instructions. For additional performance criteria and specific test results, contact Tnemec Company or its representative.