



PRODUCT PROFILE

GENERIC DESCRIPTION Epoxy Vinyl Ester

COMMON USAGE Series 1420 is an FDA-compliant, trowel-grade vinyl ester lining suitable for direct-food contact in tanks and vessels. Glass-flake reinforcement provides additional abrasion and permeation resistance in wet slurry or immersion service environments. Series 1420 may be used as a stand-alone lining system or with a gel coat in a multi-coat system. Replaces ProPolymer 4855T.

COLORS 901 White, 908 Lavender

FINISH Matte

SPECIAL QUALIFICATIONS Complies with the requirements and extractive limitations of US FDA 21 CFR Part 175.300 Resinous and Polymeric Coatings for tanks or other repeated use direct food storage or mixing vessels 5 gallons or greater under conditions of use C-E with all food types. Compliance was based upon raw material supplier documents, and third party analytical and extractive test results (HKGH02404141).

COATING SYSTEM

PRIMERS Series 1402

TOPCOATS Series 1430, 1432

SURFACE PREPARATION

STEEL **Immersion Service:** SSPC-SP10/NACE 2 Near-White Metal Blast Cleaning or ISO Sa 2 1/2 Very Thorough Blast Cleaning with a minimum angular anchor profile of 3.0 mils. **Note:** For aggressive cargo exposures or immersion in elevated temperatures, an SSPC-SP5/NACE 1 or ISO Sa 3 Blast Cleaning to Visually Clean Steel with a minimum angular anchor profile of 3.0 mils may be required. Contact Tnemec Technical Service for more information.

CONCRETE Allow new cast-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). 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 surface profile. Large cracks, voids and other surface imperfections should be filled with a recommended filler or surfacer.

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

TECHNICAL DATA

VOLUME SOLIDS 85% (mixed). Series 1420 contains a reactive monomer and some loss will occur during application and cure. Actual solids by volume will vary depending upon temperature and air movement.

RECOMMENDED DFT CURING TIME 30.0 to 60.0 mils (762 to 1524 microns) per coat.

Temperature	To Recoat	Immersion Service
90°F (32°C)	3 hours min. 3 days max.	20 hours
75°F (24°C)	4 hours min. 4 days max.	24 hours

Note: Certain service applications may require elevated temperature cure for maximum performance.

VOLATILE ORGANIC COMPOUNDS EPA Method 24
0.65 lbs/gallon (78 grams/litre)

THEORETICAL COVERAGE 1,363 mil sq ft/gal (33.4 m²/L at 25 microns). See APPLICATION for coverage rates.

NUMBER OF COMPONENTS Two: Part A (base) and Part B (catalyst)

PACKAGING

	Part A (Partially filled)	Part B (Partially filled)	Yield (mixed)
Medium Kit	6 gallon pail	Pint bottle	5.0 gallons (18.9 L)
Small Kit	3 gallon can	4 oz bottle	1.0 gallons (3.7 L)

NET WEIGHT PER GALLON 11.3 lbs ± 0.25 lbs (5.1 ± 0.11 kg) (mixed)

STORAGE TEMPERATURE Minimum 50°F (10°C) Maximum 75°F (24°C)

TEMPERATURE RESISTANCE (Dry) Continuous 225°F (107°C)

SHELF LIFE Part A: 3 months; Part B: 12 months at recommended storage temperatures.
DUE TO THE REACTIVE NATURE OF THE VINYL ESTER RESINS AND THE CORRESPONDING LIMITED SHELF LIFE, EXPEDITIOUS USE OF THIS PRODUCT IS SUGGESTED, SINCE JOBSITE STORAGE CONDITIONS ARE BEYOND TNEMEC'S CONTROL, THIS PRODUCT IS NON-RETURNABLE.

FLASH POINT - SETA Part A: 79°F (26°C) Part B: 133°F (56°C)

HEALTH & SAFETY Paint products contain chemical ingredients which are considered hazardous. Read container label warning and Safety Data Sheet for important health and safety information prior to the use of this product.

Keep out of the reach of children.

PROPOLYMER™ | SERIES 1420

APPLICATION

COVERAGE RATES

	Dry Mils (Microns)	Wet Mils (Microns)	Sq Ft/Gal (m ² /Gal)
Minimum	30.0 (762)	35.0 (896)	45 (4)
Maximum	60.0 (1524)	71.0 (1792)	23 (2)

Actual spreading rates will vary with surface profile, amount of overspray and surface irregularities. Application of coating below minimum or above maximum recommended dry film thicknesses may adversely affect coating performance. THIS PRODUCT SHOULD NOT BE APPLIED BELOW 60°F (16°C) MATERIAL TEMPERATURE.

MIXING

Power mix contents of Part A (base) thoroughly, making sure no pigment remains on the bottom of the can. Add the Part B (catalyst) slowly to the Part A while under agitation. Ensure that all Part B is blended with Part A by scraping the pail walls with a flexible spatula. Continue to agitate until thoroughly mixed. **Note:** Do not over mix, caution should be taken to avoid shearing the glass flake. Do not use mixed material beyond pot life limits.

THINNING

Do not thin.

POT LIFE

45 minutes at 75°F (24°C)

Note: At higher temperatures pot life will decrease (use caution in spray equipment).

APPLICATION EQUIPMENT

Troweled: Use a high grade metal trowel with rounded corners in addition to if needed, a mortar hawk to assist in transfer of mixed materials.

Finish Roll: Use a high quality 1/4" nap, shed resistant, woven fabric roller, lightly dampened with Series 44-809 Smoothing Agent over the surface while Series 1420 is still in a semi-fluid condition.

SURFACE TEMPERATURE

Minimum 60°F (16°C), optimum 70°F (21°C), maximum 100°F (38°C). The surface should be dry and at least 5°F (3°C) above the dew point. At surface temperatures below 60°F (16°C), Series 1420 will not cure properly or obtain maximum chemical resistance. At relative humidities above 75%, the cure of this coating may be retarded. It is also recommended that all precautions be taken to insure that adequate forced-air ventilation exists.

MATERIAL TEMPERATURE

For optimum application, handling and performance, the material temperature during application should be between 60°F and 90°F (16°C and 32°C). Temperature will affect the workability. Cool temperatures increase viscosity and lengthen pot life. Warm temperatures will decrease viscosity and shorten pot life.

CLEANUP

Clean equipment immediately after use with MEK.

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