TNEMEC

PRODUCT DATA SHEET

ULTRA-TREAD® M SERIES 244

PRODUCT PROFILE

GENERIC DESCRIPTION Polyurethane Modified Concrete

COMMON USAGE Ultra-Tread M is a low odor mortar applied floor topping designed for monolithic applications in abusive service areas. It provides superior performance to other flooring systems such as acid brick, quarry tile and most polymer flooring systems. Designed for use in food and beverage facilities, pharmaceutical and processing areas, commercial and restaurant kitchens or anywhere a durable floor topping is required. Provides excellent chemical resistance and withstands thermal shock due to hot liquids and aggressive cleaning procedures. Areas may be quickly returned to service within hours of installation, depending on temperature and humidity. Ultra-Tread M is a self-priming mortar that can be applied to 10 day old concrete. It can withstand moisture vapor transmission up to 20 lbs (per ASTM F 1869) and relative humidity up to 99% (per ASTM F 2170).

COLORS 00GR Gray, 00RD Red. Black, blue, beige, and green are also available. Additional lead time may apply. Aromatic urethanes chalk and yellow with age, extended exposure to UV and artificial lighting.

FINISH Matte

SPECIAL QUALIFICATIONS Formulated with antimicrobial properties. Does not support bacteria or fungal growth. Contact your Tnemec representative for specific test results.

COATING SYSTEM

SURFACER/FILLER/PATCHER Series 243, 244, 245 (extended with aggregate). Patching should be allowed to cure a minimum of six hours prior to placement of Series 244 to avoid blistering or doming of the Series 244. Series 215, or 201 mixed with fumed silica, may be used for small patches or crack repairs. Certain high-early strength, cementious repair mortars are also acceptable. Contact Tnemec for further qualifications.

PRIMERS Self-priming

SURFACE PREPARATION

Prepare surfaces by method suitable for exposure and service.

CONCRETE Allow new poured-in-place concrete to cure a minimum of 10 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 20 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 99%), 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 5 or greater 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. **Note:** Substrate conditions which can adversely affect the adhesion of Series 244 Ultra-Tread M include: concrete that is structurally unsound, wet, damp, contaminated, or inadequately profiled at the time of application, absent or inadequate under slab moisture vapor barrier, hydrostatic pressure, Alkali Silica Reaction (ASR), and migration of oils, chemicals, and other contaminants.

TECHNICAL DATA

VOLUME SOLIDS 100% (mixed)

RECOMMENDED DFT Suggested 1/4" to 3/8" (6mm to 9 mm).

CURING TIME

Temperature	Light Traffic	Place in Service †
75°F (24°C)	8 hours	12 hours

† For full resistance to chemicals and steam cleaning, 24 hour cure is needed.
Curing time varies with surface temperature, air movement, humidity and film thickness. **Note:** For faster curing and low temperature applications, add No. 44-714 Ultra-Tread Accelerator, see separate product data sheet for cure information.

VOLATILE ORGANIC COMPOUNDS Parts A & B: 0.2 lbs/gallon (23 grams/litre)
Parts A, B & C: 0.05 lbs/gallon (6 grams/litre)

THEORETICAL COVERAGE 21.0 - 17.0 sq ft per small kit

NUMBER OF COMPONENTS Four—Liquids: Part A & Part B, Aggregate: Part C, Colorant

PACKAGING

	PART A	PART B	PART C (Aggregate)	Colorant (Powder)	Mixed Yield
Small Kit	1-1 gallon jug (partially filled)	1- 1/2 gallon jug	1-50 lb. bag	1 bag	3.24 gal.

NET WEIGHT PER GALLON 18.39 ± 0.25 lbs (8.34 ± .11 kg) (mixed)

STORAGE TEMPERATURE Minimum 35°F (2°C) Maximum 110°F (43°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 235°F (112°C). At thicknesses of ¼" or greater, resistant to aggressive chemical cleaning, thermal shock from steam or hot water, and occasional high temperature liquid spills or discharge at temperatures from -40°F (-40°C) to 250°F (121°C).

SHELF LIFE Part A: 12 months Part B: 12 months Part C: 12 months

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 *StrataShield Application Guide for Polyurethane Modified Concrete.*

GUIDE:

	Small Kit Coverage
At 1/4" (6.4 mm)	21 sq ft (1.9 m²)
At 3/8" (9.5 mm)	17 sq ft (1.5 m²)

Application below minimum or above maximum recommended thicknesses may adversely affect performance. Above rates are based on theoretical coverage. Actual coverage will vary based on condition of substrate.

MIXING Using a variable speed drill and mixing paddle, slowly mix the entire contents of both the A and B components for a minimum of one minute. While under agitation, slowly add colorant and mix until blended. Continuing agitation, slowly add the Part C aggregate and mix until material is uniform and no dry aggregate is present. The entire mixing process should take approximately three minutes. **Note:** Part B is moisture sensitive. Do not open until ready to mix. **Caution: Do not attempt to split kits and do not reseal mixed material.**

Accelerator: For accelerated cure on low temperature applications add Series 44-714 Ultra-Tread Accelerator to the Series 244 Part A prior to mixing. The proper amount of Series 44-714 is based upon ambient temperature; At 68°F (20°C) with 40% relative humidity 1 oz per kit will result in an 8 hour maximum cure time, 2 oz per kit will result in a 6 hour maximum cure time, 3 oz per kit will result in a 4 hour maximum cure time.
Note: Material will set up quickly if not applied immediately after mixing.

THINNING **DO NOT THIN.**

POT LIFE Without 44-714: 15 minutes at 75°F (24°C)
Higher material temperatures will significantly reduce the pot life and working time.

With 44-714 when using maximum amount (3 oz): 15 minutes at 60°F (16°C) 10 minutes at 70°F (21°C)

APPLICATION EQUIPMENT **Mortar:** Screed and trowel
Finish: Loop roller
Note: For detailed instructions, refer to the StrataShield Application Guide for Polyurethane Modified Concrete.

SURFACE TEMPERATURE Minimum of 40°F (4°C), optimum 65°F to 80°F (18°C to 27°C), maximum of 85°F (29°C). The substrate temperature should be at least 5°F (3°C) above the dew point. Coating will not cure below minimum surface temperature.

MATERIAL TEMPERATURE For optimum application, handling and performance, the material temperature during application should be between 60°F and 80°F (16°C and 27°C). Temperature will affect the workability. Cool temperatures increase viscosity and decrease workability. Warm temperatures will decrease viscosity and significantly shorten pot life and working time.

AMBIENT HUMIDITY Humidity must be below 85%.

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