



SURFACE PREPARATION AND APPLICATION GUIDE

POLYURETHANE MODIFIED CONCRETE
SERIES N241, N242, N243, N244, N246

TNEMEC COMPANY INC.

123 West 23rd Avenue, North Kansas City, MO 64116
+1-816-483-3400 tnemec.com

Published technical data, instructions, and pricing are subject to change without notice. Contact your Tnemec technical representative for current technical data, instructions, and pricing. Warranty information: The service life of Tnemec's coatings will vary. For warranty, limitation of seller's liability, and product information, please refer to Tnemec's Product Data Sheets at www.tnemec.com or contact your Tnemec Technical Representative. 07/2026

TABLE OF CONTENTS

Introduction.....	1
Precautions.....	1
Products & Packaging.....	1-3
Surface Preparation.....	3-4
Mixing.....	4-5
Application.....	5-6
Curing.....	6
Cleanup.....	6
Health & Safety.....	6

INNOVATION IN EVERY COAT.™

1.0 INTRODUCTION

The purpose of this guide is to familiarize applicators with the basic information necessary for properly bidding, ordering, and installing Tnemec's Ultra-Tread floor topping. Prior to starting work, please read this entire guide carefully. If you have questions, contact your Tnemec representative or call +1 816-483-3400. It is important that you obtain answers to any questions before beginning the process. Due to the complex application and potential exposure to extreme environments, only qualified applicators should install Ultra-Tread. Please review all pertinent Product Data Sheets as well as Detail Drawings.

Also, reference the project specifications and compare them with this guide and the Product Data Sheets. Resolve any inconsistencies prior to starting work.

This application guide cannot cover every issue that may be encountered in the field. If issues arise that are not addressed in this guide or the Product Data Sheets, please contact your Tnemec representative or call +1 816-483-3400 for assistance.

2.0 PRECAUTIONS

- Material should be stored between 35°F (2°C) and 110°F (43°C).
- Material should be stored at temperatures between 70°F (21°C) and 90°F (32°C) for at least 48 hours prior to use.
- Do not install material if substrate temperatures are below 40°F (4°C) or above 85°F (29°C).
- Do not install if relative humidity is above 85%.
- Do not attempt to split kits or alter Part C aggregates.
- Do not mix material by hand.
- Due to the limited working time of the material, adequate manpower should be considered.
- Part B is moisture sensitive. Do not open until ready to mix.
- Part C is moisture sensitive and should be stored in a dry area.
- Ensure substrate is clean, dry, and free of contaminants.
- Exceeding the recommended coating thickness may result in blistering of the product.

3.0 PRODUCTS & PACKAGING

3.1 SERIES N241 ULTRA-TREAD MVT

Series N241 is a low odor, slurry applied, high performance moisture control base layer designed to reduce moisture vapor emissions prior to the application of non-breathing, polymer floor topping finishes. Ultra-Tread MVT is a self-priming base coat 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).

3.1.1 SERIES N241 PACKAGING

KIT SIZE	PART A (Partially Filled)	PART B (Partially Filled)	PART C (Aggregate)	MIXED YIELD
Extra Large	245 gallon tote	245 gallon tote	245 – 20 lb bags	700.9 gallons (2,653.2 L)
Large	5 gallon pail	5 gallon pail	5 – 20 lb bags	14.3 gal (54.2 L)
Medium	3.5 gallon pail	3.5 gallon pail	3 – 20 lb bags	8.6 gallons (32.5 L)
Small	1 gallon pail	1 gallon pail	20 lb bag	2.9 gallons (10.8 L)

Theoretical yield: 89 - 100 sq. ft. (6.50 - 7.43 m²) per mixed small kit at recommended DFT of 46.0 -

52.0 mils (1,168 to 1,320 microns)*

*Substrate condition, application and waste may vary and can affect coverage.

3.1.2 SERIES N241 COVERAGE RATES (THEORETICAL)

APPLIED NEAT	BROADCAST TO REFUSAL	SMALL KIT COVERAGE
46 - 52 mils (1,168-1,320 microns)	1/8" (3.0 mm)	89 - 100 sq ft (8.2 - 9.3 m ²)

Application below minimum or above maximum recommended thicknesses may adversely affect performance. Above rates are based on theoretical coverage. Actual coverage will vary depending on mixing and application methods and equipment, temperatures, actual site and curing conditions, waste and the condition of the substrate.

3.1.3 SERIES N241 STORAGE AND MATERIAL TEMPERATURE

Minimum storage temperature is 35°F (2°C) and maximum is 110°F (43°C). Material should be stored or conditioned between 70°F (21°C) and 90°F (32°C) for at least 48 hours prior to use.

For optimum application, handling and performance, the material temperature during application should be between 60°F (16°C) and 80°F (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.

3.2 SERIES N242 ULTRA-TREAD S

Series N242 is a low-odor, slurry-applied, flowable mortar 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. Series N242 is available in three standard colors: gray, red, and neutral. **Note:** Additional lead times may apply when ordering Beige, Black, Blue, Green, Off White, and Yellow.

3.2.1 SERIES N242 PACKAGING

KIT SIZE	PART A	PART B	PART C (AGGREGATE)	MIXED YIELD
Extra Large Kit	245 gallon tote	245 gallon tote	245 – 41 lb. bags	931.0 gallons (3,524.2 L)
Large Kit	5 gallon pail	5 gallon pail	5 – 41 lb. bags	19.0 gallons (71.9 L)
Medium Kit	3.5 gallon pail (partially filled)	3.5 gallon pail (partially filled)	3 – 41 lb. bags	11.4 gallons (43.1 L)
Small Kit	1 gallon pail	1 gallon pail	41 lb. bag	3.8 gallons (14.3 L)

3.2.2 SERIES N242 COVERAGE RATES (THEORETICAL)

APPLIED NEAT	BROADCAST TO REFUSAL	SMALL KIT COVERAGE
1/8" (3.0 mm)	3/16" (5.0 mm)	54 - 56 sq ft (5.0 - 5.2 m ²)
3/16" (5.0 mm)	1/4" (6.0 mm)	36 - 38 sq ft (3.3 - 3.5 m ²)
1/4" (6.0 mm)	5/16" (8.0 mm)	26 - 28 sq ft (2.4 - 2.6 m ²)

Important: Series N242 should not exceed 1/2" (13 mm) thickness when applied neat. Note: Exceeding the recommended

coating thickness may result in blistering of the product. Avoid excessive coating thickness by thoroughly filling voids, depressions, and cracks with recommended filler or surfacer. Application below the minimum or above maximum recommended thicknesses may adversely affect performance. Above rates are based on theoretical coverage. Actual coverage will vary depending on mixing and application methods and equipment, temperatures, actual site and curing conditions, waste and the condition of the substrate.

3.2.3 SERIES N242 STORAGE AND MATERIAL TEMPERATURE

Minimum storage temperature is 35°F (2°C) and maximum is 110°F (43°C). Material should be stored or conditioned between 70°F (21°C) and 90°F (32°C) for at least 48 hours prior to use.

For optimum application, handling and performance, the material temperature during application should be between 60°F (16°C) and 80°F (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.

3.3 SERIES N243 ULTRA-TREAD V

Ultra-Tread V is a low-odor mortar designed for troweling vertical surfaces such as trenches and equipment pads, and for building cove base. It should be used for vertical application needs in conjunction with horizontal applications of Series N242 Ultra-Tread S or Series N244 Ultra-Tread M. Designed for use in food and beverage facilities, pharmaceutical and processing areas, commercial and restaurant kitchens, or anywhere a durable floor topping is required. Series N243 is available in two standard colors: gray and red. **Note:** Additional lead times may apply when ordering Beige, Black, Blue, Green, Off White, and Yellow.

3.3.1 SERIES N243 PACKAGING

KIT SIZE	PART A	PART B	PART C (AGGREGATE)	MIXED YIELD
Large	5 gallon pail	5 gallon pail	20 – 25 lb. bags	32.7 gal. (123.7 L)
Small	1 gallon pail	1 gallon pail	4 – 25 lb. bags	6.5 gallons (24.6 L)

Theoretical yield: 56 sq. ft. (5.2 m²) per mixed small kit at 3/16" (4.8 mm)*

Theoretical yield (4" rolled radius base): Approximately 72-80 lineal feet (22-24 m) per mixed small kit

**Substrate condition, application, and waste may vary and can affect coverage.*

3.3.2 SERIES N243 COVERAGE RATES (THEORETICAL)

SERIES N243	COVERAGE AT 3/16" (4.8 MM)
Large Kit	280 sq ft (26.1 m ²)
Small Kit	56 sq ft (5.2 m ²)

Four inch rolled radius base, approximately 72-80 lineal feet per small kit. 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.

3.3.3 SERIES N243 STORAGE AND MATERIAL TEMPERATURE

Minimum storage temperature is 35°F (2°C) and maximum is 110°F (43°C). Material should be stored or conditioned between 70°F (21°C) and 90°F (32°C) for at least 48 hours prior to use.

For optimum application, handling and performance, the material temperature during application should be between 60°F (16°C) and 80°F (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.

3.4 SERIES N244 ULTRA-TREAD M

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). Series N244 is available in two standard colors: gray and red. **Note:** Additional lead times may apply when ordering Beige, Black, Blue, Green, Off White, and Yellow.

3.4.1 SERIES N244 PACKAGING

KIT SIZE	PART A	PART B	PART C (AGGREGATE)	MIXED YIELD
Large Kit	5 gallon pail	5 gallon pail	10 – 50 lb. bags	32.4 gallons (122.6 L)
Small Kit	1 gallon pail	1 gallon pail	2 – 50 lb. bags	6.47 gallons (12.3 L)

3.4.2 SERIES N244 COVERAGE RATES (THEORETICAL)

SERIES N244	SMALL KIT COVERAGE
At 1/4" (6.4 mm)	42 sq ft (3.9 m ²)
At 3/8" (9.5 mm)	28 sq ft (2.6 m ²)

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.

3.4.3 SERIES N244 STORAGE AND MATERIAL TEMPERATURE

Minimum storage temperature is 35°F (2°C) and maximum is 110°F (43°C). Material should be stored or conditioned between 70°F (21°C) and 90°F (32°C) for at least 48 hours prior to use.

For optimum application, handling and performance, the material temperature during application should be between 60°F (16°C) and 80°F (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.

3.5 SERIES N246 ULTRA-TREAD GLAZE

Ultra-Tread Glaze is a pigmented, high-build, low-odor polyurethane coating. Typically used as a topcoat for sealing or locking aggregate in Series N242 Ultra-Tread S broadcast texture finish. 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.

3.5.1 SERIES N246 PACKAGING

KIT SIZE	PART A (Partially Filled)	PART B	PART C (Aggregate)	MIXED YIELD
Large Kit	5 gallon pail	5 gallon pail	5 – 9.3 lb. bags	11.7 gallons (44.2 L)
Small	1 gallon pail	1 gallon pail	9.3 lb. bag	2.4 gallons (8.9 L)

Theoretical yield (applied neat): 315 sq. ft. (29.3 m²) per mixed small kit at 12 mils (305 microns)*

*Substrate condition, application, and waste may vary and can affect coverage.

3.5.2 SERIES N246 COVERAGE RATES (THEORETICAL)

	DRY MILS (MICRONS)	WET MILS (MICRONS)	SQ FT/GAL (M ² /GAL)	SMALL KIT COVERAGE
Suggested	12.0 (305)	12.0 (305)	134 (12.4)	315 sq ft (29.3 m ²)
Minimum	10.0 (255)	10.0 (255)	160 (14.9)	378 sq ft (35.1 m ²)
Maximum	14.0 (355)	14.0 (355)	115 (10.6)	270 sq ft (25.1 m ²)

3.5.3 SERIES N246 STORAGE AND MATERIAL TEMPERATURE

Minimum storage temperature is 35°F (2°C) and maximum is 110°F (43°C). Material should be stored or conditioned between 70°F (21°C) and 90°F (32°C) for at least 48 hours prior to use.

For optimum application, handling and performance, the material temperature during application should be between 60°F (16°C) and 80°F (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.

3.6 SERIES 44-714 ULTRA-TREAD ACCELERATOR

Series 44-714 is a special additive used to decrease the cure time of Tnemec's four-component Ultra-Tread products where faster return to service is needed. Series 44-714 has virtually no volatile organic compounds or odor. It may be used with Series N241, N242, N243, N244, or N246.

Due to shortened working time, Series 44-714 is not recommended for use if the substrate is 70°F (21°C) or greater. Do not exceed recommended dosage, reference mixing for more information. Use of Series 44-714 may affect flow and leveling properties when used with Series N242.

3.6.1 SERIES 44-714 PACKAGING

Series 44-714 is available in quarts (0.95 L) or gallon (3.79 L) sizes.

3.6.2 SERIES 44-714 STORAGE AND SURFACE TEMPERATURE

Minimum storage temperature is 40°F (4°C) and maximum is 110°F (43°C). Protect material from freezing.

Do not apply if the surface temperature is greater than 70°F (21°C).

4.0 SURFACE PREPARATION

4.1 PREPARATION OF 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, or mechanically abrade concrete surfaces to remove laitance, curing compounds, hardeners, sealers and other contaminants, and to provide the minimum ICRI-CSP surface profile.

SERIES	ICRI-CSP SURFACE PROFILE
N241	3 - 4
N242	3 - 5 or greater
N243	3 - 4
N244	5 or greater
N246	3 - 4

Existing concrete should be sound and free of all contaminants. Removal of weak or contaminated concrete prior to installation is required to ensure a strong bond between the concrete and Ultra-Tread floor topping system. Large cracks, voids and other surface imperfections should be filled with a recommended filler or surfacer.

4.2 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 N241, N242, N243, and N244 include: concrete that is structurally unsound, wet, damp, contaminated, or inadequately profiled at the time of application; absent or inadequate under-slab moisture barrier; hydrostatic pressure; Alkali Silica Reaction (ASR); and migration of oils, chemicals, and other contaminants.

4.3 PATCHING

All surface imperfections such as spalls, large cracks, and areas requiring keyways – such as drains and terminations – should be detailed prior to the installation of the Ultra-Tread topping. Reference the product data sheet for additional information.

4.4 CRACKS AND SURFACE IMPERFECTIONS

Exceeding the recommended coating thickness may result in blistering of the product. Avoid excessive coating thickness by thoroughly filling voids, depressions, and cracks with recommended filler or surfacer prior to Series N241 application.

4.5 CONSTRUCTION JOINTS, CRACKS, AND IMPERFECTIONS

Construction joints, cracks, and imperfections should be prefilled and/or patched with Series N241 or N242 (extended with aggregate) or Series N243 or N244. Patching should be allowed to cure a minimum of six hours prior to placement of the Series N241 to avoid blistering or doming of the extended Series N241 or Series N243 patching materials. Series 215, or Series 201 or 208 mixed with fumed silica, may be used for small patches or crack repairs. Certain high-early strength, cementitious repair mortars are also acceptable.

4.6 TERMINATIONS

Any stopping points such as perimeters, drains, trenches, etc., must be keyed to provide anchorage against shrinkage during cure and thermal cycling stress when applying Series N242 and N244 mortar systems. This is achieved by saw cutting 1/2" wide by 1/2" deep channels into the substrate. When applying Ultra Tread in larger areas exposed to thermal shock, it may be beneficial to cut additional channels in a grid pattern throughout the substrate being topped. Do not featheredge. Reference the latest version of the StrataShield Standard Detail Drawings. **Note:** Preset drains will also require isolation joints to allow for thermal movement of the surrounding substrate.

4.7 CONTROL JOINTS

Control/saw cut joints can be cleaned out and left exposed when installing Series N242 and N244 mortars. They will assist in acting as anchor keyways in the floor. Control joints should be filled with one of the filler/patchers listed on the product data sheet prior to applying N241 or N246 direct to concrete.

4.8 EXPANSION JOINTS

Expansion joints can be considered moving joints and should be honored. Appropriate caulking/sealants should be selected based on the intended use of the area. New expansion joints should be installed to isolate the following areas: load support columns, equipment set in the substrate, preset drains, any areas exhibiting differences in temperature from the surrounding floor such as around ovens and freezers, and when butting up to different flooring materials. Reference the latest StrataShield Standard Detail Drawings.

5.0 MIXING

5.1 SERIES N241, N242, N243, N244, N246 SMALL KITS

Premix components A and B separately, making sure all solids, including pigments, are uniformly distributed.

To mix Series N241, N242, N243, N244, or N246 small kits, use a variable speed 850-RPM drill and four-inch (4") dispersion blade or "H" paddle, slowly mix the entire contents of both the A and B components for a minimum of one minute. Continue agitation and slowly add the Part C aggregate and mix until material is uniform and no dry aggregate is present. The entire mixing procedure should take approximately three minutes. **Note:** Part B is moisture sensitive. Do not open until ready to mix. Never mix more material than can be applied within 15 minutes of initial mixing.

5.2 SMALL KIT EQUIVALENCIES

SERIES	KIT SIZE	MIXED YIELD	SMALL KIT EQUIVALENT
N241	Small	2.9 gallons (10.8 L)	1
	Medium	8.6 gallons (32.5 L)	3
	Large	14.3 gallons (54.2 L)	5
	Extra Large	700.9 gallons (2,653.2 L)	245
N242	Small	3.8 gallons (14.3 L)	1
	Medium	11.4 gallons (43.1 L)	3
	Large	19.0 gallons (71.9 L)	5
	Extra Large	931.0 gallons (3524.2 L)	245
N243	Small	6.5 gallons (24.6 L)	1
	Large	32.7 gallons (123.7 L)	5
N244	Small	6.5 gallons (24.6 L)	1
	Large	32.4 gallons (122.6 L)	5
N246	Small	2.4 gallons (8.9 L)	1
	Large	11.7 gallons (44.2 L)	5

Single batch mixes equal to one (1) Small Kit or unit are frequently mixed in mortar mixers or pails. Multiple batch mixes can be mixed in an appropriate size mortar mixer or pail. **Never mix more material than can be applied within 15 minutes of initial mixing.**

5.2.1 SERIES N241

Medium, Large, and Extra-Large kits can be divided into more user-friendly batches of one gallon Part A component, one gallon Part B component, and one 20-lb bag of Part C aggregate.

Premix components A and B separately, making sure all solids, including pigments, are uniformly distributed. Slowly mix the measured amount of both the Part A and Part B components for a minimum of one minute. Continue agitation and slowly add one bag Part C aggregate and mix until material is uniform and no dry aggregate is present. The entire mixing procedure should take approximately three minutes. **Note:** Part B is moisture sensitive. Do not open until ready to mix.

Single batch mixes equal to one Small Kit or unit are frequently mixed in five-gallon pails. Multiple batch mixes are frequently mixed in larger portable, Hippo style mixers and used for larger pours

5.2.2 SERIES N242

Medium, Large, and Extra-Large kits can be divided into more user-friendly batches of one gallon Part A component, one gallon Part B component, and one 41-lb bag of Part C aggregate.

Premix components A and B separately, making sure all solids, including pigments, are uniformly distributed. Slowly mix the measured amount of both the Part A and Part B components for a minimum of one minute. Continue agitation and slowly add one bag Part C aggregate and mix until material is uniform and no dry aggregate is present. The entire mixing procedure should take approximately three minutes. **Note:** Part B is moisture sensitive. Do not open until ready to mix.

Single batch mixes equal to one Small Kit or unit are frequently mixed in five-gallon pails. Multiple batch mixes are frequently mixed in larger portable, Hippo style mixers and used for larger pours.

5.2.3 SERIES N243

Small and Large Kits can be divided into more user-friendly batches of one quart Part A, one quart Part B, and one 25-lb. bag of Part C aggregate. This will cover approximately 14 sq ft (1.3 m²) at 3/16" (5 mm) or 18-20 lineal feet (5.5-6.1 m) of 4" (10 cm) rolled radius or cant cove base.

Premix components A and B separately, making sure all solids, including pigments, are uniformly distributed. Mix one quart (0.25 gallons) of Part A component with one quart (0.25 gallons) of Part B component. Slowly mix the measured amount of both the part A and B components for a minimum of one minute. Continue agitation and slowly add one bag of Part C aggregate and mix until material is uniform and no dry aggregate is present. The entire mixing procedure should take approximately three minutes. **Note:** Part B is moisture sensitive. Do not open until ready to mix.

5.2.4 SERIES N244

Small Kits can be divided in half for smaller batches. Mix 0.5 gallon Part A component with 0.5 gallon Part B component and one 50-lb bag of Part C aggregate. Large Kits can be divided into more user-friendly batches of one gallon Part A, one gallon Part B, and two 50-lb. bags of Part C aggregate.

Premix components A and B separately, making sure all solids, including pigments, are uniformly distributed. Slowly mix the measured amount of both the Part A and B components for a minimum of one minute. Continue agitation and slowly add two 50-lb. bags Part C aggregate and mix until material is uniform and no dry aggregate is present. The entire mixing procedure should take approximately three minutes. **Note:** Part B is moisture sensitive. Do not open until ready to mix.

5.2.5 SERIES N246

Large Kits can be divided into more user-friendly batches of one gallon Part A, one gallon Part B, and one 9.3-lb. bag of Part C aggregate.

Premix components A and B separately, making sure all solids, including pigments, are uniformly distributed. Slowly mix the measured amount of both the Part A and B components for a minimum of one minute. Continue agitation and slowly add one 9.3-lb bag of Part C aggregate and mix until material is uniform and no dry aggregate is present. The entire mixing procedure should take approximately three minutes. **Note:** Part B is moisture sensitive. Do not open until ready to mix.

5.3 SERIES 44-714 ULTRA-TREAD ACCELERATOR

For accelerated cure on low temperature applications of Series N241, N242, N243, N244, or N246, add Series 44-714 Ultra-Tread Accelerator to the Part A prior to mixing.

The proper amount of Series 44-714 is based upon ambient temperature. At 70°F (21°C) and 50% relative humidity:

- 1 oz. per small kit will result in a 9 hour maximum cure time
- 2 oz. per small kit will result in a 7 ½ hour maximum cure time
- 3 oz. per small kit will result in a 6 ½ hour maximum cure time

Note: Material will set up quickly if not applied immediately after mixing.

5.4 SERIES N241, N242, N243, N244, N246 SURFACE TEMPERATURE

Minimum of 40°F (4°C), optimum 65°F (18°C) to 80°F (27°C), maximum of 85°F (29°C). The substrate temperature should be at least 5°F (3°C) above dew point. Coating will not cure below minimum surface temperature. If using Series 44-714 Ultra-Tread Accelerator, do not apply if the surface temperature is greater than 70°F (21°C).

Note: To reduce the effects of outgassing when applied to concrete, the surface temperature should be stable or descending and out of direct sunlight.

5.5 POT LIFE

SERIES	TEMPERATURE	POT LIFE
N241, N242, N243, N244, N246	75°F (24°C)	15 minutes
N241, N242, N243, N244, N246 with 44-714†	60°F (16°C)	15 minutes
N241, N242, N243, N244, N246 with 44-714†	70°F (21°C)	10 minutes

†When using the maximum amount of 3 oz per small kit.

Higher material temperatures will significantly reduce the pot life and working time.

6.0 APPLICATION

6.1 SERIES N241 ULTRA-TREAD MVT

Series N241 is typically applied by V-notch trowel or squeegee, backrolled with a loop roller, and broadcast to refusal with 30/50 mesh aggregate, colored quartz or decorative flake yielding an approximate 1/8" thick base layer. Spread using a 3/8" to 1/2" V-notch squeegee or trowel. Immediately backroll with a loop roller to level and work out any trowel marks or waves. Immediately follow by broadcasting to refusal with 30/50 mesh aggregate colored quartz or decorative flake. **Note:** Series N241 must be broadcast to refusal with aggregate, colored quartz, or decorative flake. Broadcast 30/50 aggregate or colored quartz at a rate of 0.8 lbs per sq ft and decorative flake at a rate of 0.25 lbs or 4-5 sq ft per lb.

6.2 SERIES N242 ULTRA-TREAD S

Series N242 Ultra-Tread S is a slurry-applied mortar. Once the material is thoroughly mixed, immediately transfer to working area. Pour onto the floor in a thick ribbon and then evenly spread to the appropriate thickness with either a trowel, screed rake, or cam rake. A smoothing blade may be used at this point to further level the material. Once level and even, a wire porcupine roller or loop roller should be used to backroll the material to help facilitate leveling and alleviate imperfections. Backrolling will also help force the aggregate down into the system while working a layer of resin to the surface. If left alone, this layer of resin will help close or seal the surface.

6.3 BROADCAST

If a textured surface or topcoat is desired, immediately broadcast purchased clean, dry, bagged 4.0 (30/50) Flint Shot, silica sand, or approved equal aggregate, colored quartz, or decorative flake to refusal into the wet surface of Series N242. Color quartz or decorative flake systems will require an additional broadcast layer to obtain a uniform appearance and texture before applying the desired clear finish coats. This will typically result in a total system thickness of 3/16" to 5/16" (5 mm to 8 mm). **Note:** Broadcast 30/50 aggregate or colored quartz at a rate of 0.5 lbs per sq ft and decorative flake at a rate of 0.25 lbs per sq ft. Excess aggregate, decorative quartz or flake can either be vacuumed or swept off once the material has cured a minimum of 6 hours. Optional topcoats may then be applied to lock in the broadcast aggregate, decorative quartz or flake. Reference product data sheet for various topcoat options.

6.4 SERIES N243 ULTRA-TREAD V

Series N243 Ultra-Tread V is designed for troweling vertical surfaces such as trenches and equipment pads, and for building cove base. The

wall must be first primed to improve adhesion and assist in hanging the material on to the wall. Mixing the Part A and B liquids will create a priming material. The two may be mixed together at a 1:1 ratio and brushed on the vertical surface to be trowelled. The primer should be allowed to tack up but not completely dry, approximately 15-30 minutes. Dependent upon the porosity of the vertical surface the primer is being applied to, an additional prime coat may be required to provide a tacky surface. Once the Series N243 kit is mixed, it may be placed on the vertical surface with a trowel. A brush, dampened with water, may be used to seal and smooth the surface of the mortar.

6.5 SERIES N244 ULTRA-TREAD M

This unique mortar system is often applied as a stand-alone mortar. After the material is mixed for the appropriate amount of time, Series N244 is typically spread using a trowel, screed rake, cam rake or screed box followed by closing and finishing with a trowel.

A loop roller or short nap roller cover is often used to help eliminate trowel marks and draw resin to the surface to seal. Aggregate can be broadcast into the wet surface within 10 to 15 minutes of application if additional non-skid texture is desired. If topcoating the mortar, aggregate must be broadcast to refusal into the wet mortar within 10 to 15 minutes of application.

6.6 SERIES N246 ULTRA-TREAD GLAZE

This unique mortar system is often applied as a stand-alone mortar. After the material is mixed for the appropriate amount of time, Series N244 is typically spread using a trowel, screed rake, cam rake or screed box followed by closing and finishing with a trowel.

A loop roller or short nap roller cover if often used to help eliminate trowel marks and draw resin to the surface to seal. Aggregate can be broadcast into the wet surface within 10 to 15 minutes of application if additional non-skid texture is desired. If topcoating the mortar, aggregate must be broadcast to refusal into the wet mortar within 10 to 15 minutes of application.

7.0 CURING

Series N241, N242, N243, N244, and N246 should be ready to return to light duty service within 8-12 hours dependant upon temperatures and humidity. This includes decontamination of area as well as dry processing and foot traffic. The material should be allowed to cure 24 hours before being returned to full service where exposed to fork lift traffic and where water and/or chemicals are used. Allow a full 24-hour cure when immediate exposure to harsh chemical or steam cleaning is a critical part of the area's processing/production.

7.1 SERIES N241, N242, N243, N244, N246 CURE TIMES

SERIES N241, N242, N243, N244, N246	AT 75°F (24°C)
Minimum Recoat	6 hours
Light Traffic	8 hours
To Place in Service	12 hours
Full Resistance to Chemicals and Steam Cleaning	24 hours

Curing time varies with surface temperature, air movement, humidity, and film thickness.

7.2 CURE TIMES WITH SERIES 44-714 ULTRA-TREAD ACCELERATOR

N241, N242, N243, N244, N246	TO PLACE IN SERVICE		FULL CHEMICAL RESISTANCE	
	70°F (21°C) [†]	40°F (4°C) [†]	70°F (21°C) [†]	40°F (4°C) [†]
USAGE PER SMALL KIT				
1 oz	6 hours	34 hours	9 hours	50 hours
2 oz	5 hours	26 hours	7½ hours	38 hours
3 oz	4½ hours	14 hours	6½ hours	22 hours

[†]At 50% relative humidity.

8.0 CLEANUP

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

9.0 HEALTH & SAFETY

These products may contain solvents and/or other chemical ingredients. Adequate health and safety precautions should be observed during storage, handling, application and curing. For information regarding these potential hazards associated with these products please refer to the container label or request a Safety Data Sheet from Tnemec Company Inc. Please direct your inquiries to the attention of our Safety Director.