



EXCELLATHANE SS SERIES 257

PRODUCT PROFILE

GENERIC DESCRIPTION	Modified Aliphatic Polyaspartic
COMMON USAGE	A slower setting Polyaspartic floor coating, offering longer working time and lower viscosity. Series 257 minimizes the potential for lap marks and roller lines when used in large flooring applications. It can be used as a two coat thin-film system or as a clear or pigmented finish coat over systems built using epoxy or polyurethane modified concrete floor toppings that have been fully broadcast with aggregate, colored quartz or colored flake. Series 257 will provide protection against impact, abrasion and mild chemicals, has excellent gloss and color retention, and resistance to yellowing. This low VOC, 100% solids urethane exhibits low odor characteristics allowing for use near occupied spaces.
COLORS	Supplied as a clear coat, may be field tinted with available Series 821 color pack in the 16 standard StrataShield colors and limited custom colors. Color packs are sold separately. Contact Tnemec for availability. Note: Certain colors may require multiple coats depending on the method of application and finish coat color.
FINISH	Gloss. The texture of the finished surface will depend on the film thickness and number of coats applied. Note: Application as a clear topcoat may lead to a cloudy appearance if the product is overworked, applied too thick, or applied too far into its pot life. This product has a short working time. Caution should be taken to apply the material immediately after mixing and to not overwork the product when rolling.
SPECIAL QUALIFICATIONS	Series 257 was tested in accordance with, and passed, the California Dept. of Public Health (CDPH) Standard Method v1.2 and meets the requirements of LEED v4.1 Low-Emitting Materials, Collaborative for High Performance Schools-Paints & Coatings, Living Building Challenge Materials Petal 10, and WELL Building Standard v2 X06 VOC Restrictions.

COATING SYSTEM

SURFACER/FILLER/PATCHER	Series 215, or Series 201, 256 or 257 mixed with select aggregate fillers may be used for small patches or crack repairs. Certain high-early strength, cementitious repair mortars are also acceptable for deeper filling and patching. For more extensive repairs and additional information, contact your Tnemec representative or Tnemec Technical Services.
PRIMERS	Self-priming or Series 241, 242, 245. Note: When applying over standard epoxies or epoxy primers the epoxy is typically fully broadcast with aggregate, colored quartz or colored flake or mechanically abraded using 60 grit sandpaper or coarser. Note: When building systems using 222, 224, 233, 237, 238, 241, 242 and 245 refer to applicable product data sheet for appropriate primer/intermediate selection.
INTERMEDIATE	Series 222, 224, 233, 237, 238, 256, 257. Note: If Series 222, 224, 233, 237 or 238 is used as an intermediate coat, aggregate, colored quartz, or decorative flake is typically broadcast to refusal into the intermediate coat prior to topcoating with 257.
TOPCOATS	Series 247, 248, 257. Note: Before applying Series 247/248 over coatings with a smooth, glossy surface, thoroughly scarify the Series 257 using a power sander and 100 grit sandpaper, No. 60 mesh sanding screen or a coarse stripping pad to eliminate surface tension. Failing to uniformly degloss the entire surface or thoroughly clean all surface contamination may lead to fisheyes and/or poor adhesion. Sanding or scarification is not required when topcoating textured coatings (i.e. aggregate or colored quartz broadcast to refusal) with Series 247/248 if maximum recoat time of the previous coating is met.

SURFACE PREPARATION

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 241 may be substituted for the primer. Refer to the Series 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: 6.0 to 12.0 mils (150-305 microns) per coat. Broadcast: 1/16" to 1/8" (Double broadcast or slurry broadcast required to achieve 1/8") Grout coat: 8.0 to 16.0 mils (203 to 406 microns) Intermediate or Topcoat: 8.0 to 16.0 mils (203 to 406 microns) Note: Do not exceed 20 mils (500 microns) dry film thickness.

EXCELLATHANE SS | SERIES 257

CURING TIME

Temperature	To Topcoat	Light Traffic	Place in Service
75°F (24°C) & 50% R.H.	3 to 5 hours minimum, 48 hours maximum*	6 to 8 hours*	12 to 24 hours*

*For applications at 75°F and 50% relative humidity, if more than 48 hours has elapsed between coats of Series 257, the surface must be mechanically abraded before recoating. For applications between 70% and 80% relative humidity, if more than 36 hours has elapsed between coats of Series 257, the surface must be mechanically abraded before recoating. Curing time varies with surface temperature, air movement, humidity and film thickness. Relative humidity greatly impacts the working time, cure speed and recoat window of Series 257. Working time and the recoat time will decrease and cure rates increase when applying in higher humidity conditions. **Do not apply if relative humidity is greater than 80%.**

VOLATILE ORGANIC COMPOUNDS

Unthinned: 0.04 lbs/gallon (4 grams/litre)
Thinned 5% (No. 72 Thinner): 0.42 lbs/gallon (51 grams/litre)

HAPS

Unthinned: 0.01 lbs/gallon solids
Thinned 5% (No. 72 Thinner): 0.01 lbs/gallon solid

THEORETICAL COVERAGE

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

NUMBER OF COMPONENTS

Liquids—Two: Part A and Part B (1.5 parts A to 1 part B by volume)
Optional Field Colorant: Series 821 is sold separately and available in pint containers in 16 standard StrataShield colors and limited custom colors.

PACKAGING

	PART A (partially filled)	PART B	Yield (mixed)
Large Kit	6 gallon pail	2 gallon pail	5.0 gallons (18.9 L)
Small Kit	3 gallon pail	1 gallon can	2.5 gallons (9.5L)

Optional Field Colorant: Series 821 field applied colorants are sold separately and available in pint containers in 16 standard StrataShield colors and limited custom colors. Order two pints per small kit or four pints per large kit. Pint containers are filled with 12 ounces of colorant. Two pints of Series 821 should be added to each 2.5 gallon small kit and four pints should be added to each 5.0 gallon large kit.

Decorative Flake Application: Decorative flake may be purchased through Tnemec as Series 224 Part C or purchased separately from a supplier providing equivalent type flake.

Aggregate & Decorative Quartz Broadcast Application: Purchase clean, dry, (30/50 mesh) silica sand or approved equal. The aggregate is calculated at one-half pound per sq ft (2.4 kg/m²) per broadcast application or one pound per sq ft (4.8 kg/m²) for a double broadcast. Additional aggregate is required to accommodate for waste or loss during application or to make coving material.

NET WEIGHT PER GALLON

8.89 ± 0.25 lbs (4.03 ± 0.11 kg) (mixed)

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 250°F (121°C) Intermittent 275°F (135°C)

SHELF LIFE

Part A: 9 months; Part B: 12 months at recommended storage temperatures.

FLASH POINT - SETA

N/A

HEALTH & SAFETY

This product contains 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.

APPLICATION

COVERAGE RATES

Primer: 6.0-12.0 dry mils (150-305 microns), 6.0-12.0 wet mils (150-305 microns), 134-267 sq ft/gal (12.2-24.3 m²)
Decorative Flake Application: Spread the mixed liquids (Parts A and B) at a rate of 160 sq ft (3.94 m²L) per gallon or approximately 10-12 mils (255-305 microns) wet. **Broadcast Randomly:** This technique provides a "speckled" appearance and allows the primer color to show through. Broadcast evenly across the floor at around one lb per 100 sq ft without completely covering the underlying primer. **Broadcast to Refusal:** Apply the flake at a rate of four to five sq ft per lb until no liquids are showing on the surface.
Aggregate & Decorative Quartz Broadcast Application: Spread the mixed liquids (Parts A and B) at a rate of 80-100 sq ft (7.4-9.3 m²) per gallon or approximately 15-20 mils (380-510 microns) wet. Broadcast the aggregate into the liquid within five to ten minutes until a uniformly dry appearance is obtained. After the first broadcast layer cures, forming a thickness approximately 1/16" (1.6mm) thick, remove the excess aggregate and apply a second application to obtain a minimum thickness of 1/8" (3.2mm).
Grout coat: 8.0-16.0 dry mils (203 to 406 microns), 8.0-16.0 dry mils (203 to 406 microns) wet mils, 100-201 sq ft/gal (9.3-18.6 m²).
Intermediate or Topcoat: 8.0-16.0 dry mils (203 to 406 microns), 8.0-16.0 dry mils (203 to 406 microns) wet mils, 100-201 sq ft/gal (9.3-18.6 m²). The texture of the finished surface will depend on the film thickness and number of coats applied. **Note:** Application as a clear topcoat may lead to a cloudy appearance if the product is overworked, applied too thick, or applied too far into its pot life. This product has a short working time. Caution should be taken to apply the material immediately after mixing and to not overwork the product when rolling.

WORKING TIME

21 to 23 minutes at 75°F (24°C) & 50% R.H.
Warmer temperatures and high humidity will decrease pot life, working time and recoat time and increase cure time.

MIXING

Use a variable speed drill with a PS Jiffy blade. Slowly mix 1.5 parts A component, and while under agitation add 1 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:** Material will set up quickly and must be applied immediately. Installation difficulty can occur when applying Excellathane in highly humid conditions. Excellathane's working time is inversely related to the relative humidity; in high humidity environments, the product's working time is reduced because of the excessive moisture in the atmosphere. Limiting moisture interaction with the material will hinder the cure rate. To increase the working time, once Part A and B are completely mixed, pour only a portion onto the substrate and leave the remainder in the mixing bucket until ready to be used. This will prevent moisture in the air from coming into contact with mixed material. However, pouring the entire mixture directly onto the floor can accelerate the cure and decrease open time. Do not mix several kits at once; mix only one kit at a time. Do not add freshly mixed material to previously mixed material.
Caution: Do not reseal mixed material. An explosion hazard may be created.
Field Colorant: Mix thoroughly using a variable speed drill with a PS Jiffy blade.

EXCELLATHANE SS | SERIES 257

THINNING	Normally not required. May thin up to 5% or 1/4 pint (6.4 ounces) per gallon with No. 72 Thinner. Caution: Do not exceed 5% thinning.
APPLICATION	Squeegee or trowel and backroll. Brush small areas only.
SURFACE TEMPERATURE	Minimum of 40°F (4°C), optimum 50°F to 75°F (10°C to 24°C), maximum of 80°F (27°C). The substrate temperature should be at least 5°F (3°C) above the dew point.
MATERIAL TEMPERATURE	For optimum application, handling and performance, the material temperature during application should be between 60°F and 75°F (16°C and 24°C). Temperature and humidity will affect the workability. Cool temperatures increase viscosity and decrease workability. Warm temperatures and high humidity will decrease pot life and working time and increase cure speed.
AMBIENT HUMIDITY	Humidity must be below 80%. Application of the coating above the maximum recommended dry film thickness or at relative humidities above 80% may cause bubbles to form in the cured film.
CLEANUP	Flush and clean all equipment immediately after use with xylene or MEK.

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