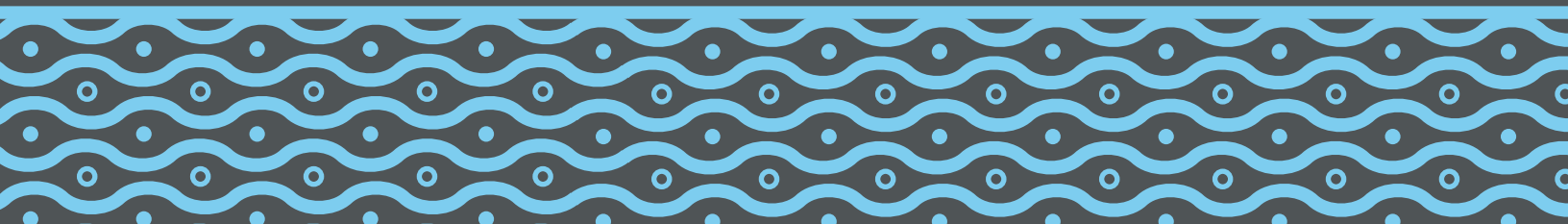




INDUSTRIAL SAND INSTALLATION GUIDE



SAFETY

Review current Safety Data Sheet(s) and all relevant KRETUS® documents. Safety conditions and personal protective equipment must be considered before mixing or installing any KRETUS® product.

TESTING AND WARRANTY

Before you begin installation, review Pre- and Post-Job Checklists available at kretus.com/project-planning. Test and look for any unknown site conditions and/or defects.

ON-SITE APPLICATION TESTING

To ensure desired results are achieved, the system should be tested in a small area on site before beginning installation.

MAINTENANCE AND CLEANING

For daily cleaning of fully cured system, use KRETUS® Coating Cleaner or similar pH-neutral cleaning product. For more information, review the Maintenance and Cleaning Guide available at kretus.com/project-planning.

PRODUCT GUIDE

Most KRETUS® 2- and 3-component products have fast- and slow-cure hardeners. Before selecting hardeners, consider jobsite temperature, MVER, applicator's skill level, and time available for installation. XFC, FC, and FAST hardeners are recommended only for experienced installers or at low temperatures.

Product	URETHANE POLYMER CONCRETE (3 COMPONENT)		
	EZ	AP	FC
Application Temperature	60-90°F <80% RH	40-80°F <70% RH	40-80°F <45% RH
Working Time	30 min	20 min	10 min
Recoat Time	12 hrs	8 hrs	3 hrs
Return to Service	24-36 hrs	12-16 hrs	2-5 hrs
Full Cure	7 days	5 days	3 days

Product	URETHANE POLYMER CONCRETE RC UV (4 COMPONENT)	
Application Temperature	40-100°F <90% RH	
Working Time	30 min	
Recoat Time	12 hrs	
Return to Service	24-36 hrs	
Full Cure	7 days	

Product	TOP SHELF® EPOXY (2 COMPONENT)					
	MVR-EZ	MVR-FC	EZ	AP	TH*	FAST
Application Temperature	60-95°F <90% RH	41-77°F <90% RH	60-110°F <90% RH	60-95°F <90% RH	60-80°F <90% RH	41-85°F <90% RH
Working Time	25-30 min	15 min	40-50 min	25-35 min	20-25 min	15-20 min
Recoat Time	8.5-24 hrs	3-16 hrs	9-36 hrs	7.5-36 hrs	8-24 hrs	5.5-24 hrs
Return to Service	24 hrs	5-6 hrs	24 hrs	24 hrs	24 hrs	10 hrs
Full Cure	7 days	5 days	7 days	7 days	7 days	5 days

*Top Shelf® Epoxy TH recommended only when MVER (moisture vapor emission rate) is less than 3 lbs./1,000 sf in a 24-hour period.



Product	POLYASPARTIC (2 COMPONENT)							
	72		85			92 LOW ODOR		
	EZ	FAST	EZ	FAST	XFC*	EZ	FAST*	XFC*
Application Temperature	<100°F <80% RH	<90°F <70% RH	<90°F <80% RH	<80°F <35% RH	<70°F <35% RH	<80°F <55% RH	<80°F <35% RH	<70°F <35% RH
Working Time	25-30 min	20-25 min	15-25 min	15-20 min	5-10 min	15-25 min	15-20 min	5-10 min
Recoat Time	8-36 hrs	4-24 hrs	8-36 hrs	4-24 hrs	1-6 h	6-24 hrs	3-24 hrs	1-6 h
Return to Service	36 hrs	24 hrs	36 hrs	24 hrs	12 h	24 hrs	24 hrs	12 h
Full Cure	7 days	5 days	7 days	5 days	3 days	5 days	3 days	3 days

* Polyaspartic 85 XFC and 92 Low Odor FAST and XFC recommended only when working in <250 sf increments.

Product	POLYURETHANE (2 COMPONENT)			
	HS		HP	
	EZ	FC	GLOSS	SATIN
Application Temperature	60-110°F <90% RH	40-80°F <40% RH	60-90°F <70% RH	60-80°F <55% RH
Working Time	30-45 min	15-20 min	20 min	15-20 min
Recoat Time	6-8 hrs	2-4 hrs	4-6 hrs	4-6 hrs
Return to Service	48 hrs	12 hrs	12 hrs	12 hrs
Full Cure	7 days	7 days	5 days	7 days

All times recorded using 1-qt. sample at ambient temperature of 70°F and 50% humidity. Top Shelf® Epoxy recorded using A-Resin in 1-qt. sample.

STORAGE, HANDLING & DISPOSAL

- **Storage:** Store materials in a cool (60-80°F), dry place out of direct sunlight. DO NOT allow water into materials unless instructed to do so.
- **Handling:** Safety Data Sheets must be adhered to at all times. No personnel may touch, relocate, or use materials without proper training. All materials are to be treated as dangerous substances without firsthand knowledge. Congregating, eating, smoking, or drinking of any kind is not allowed on or near materials.
- **Disposal:** Follow federal, local, and building requirements for waste disposal.

LIMITATIONS

- Complete samples and onsite mockups to ensure desired finish is achieved.
- **Prime Coat:** Where outgassing is suspected or prevalent or if concrete is especially porous or in poor condition, a prime coat may be required.
- **Polyaspartic:** DO NOT apply single coat greater than 14 mils thick (114 sf per gallon).
- **Polyurethane HP:** DO NOT apply single coat greater than 5 mils thick (320 sf per gallon). DO NOT install directly over industrial sand.
- **Polyurethane HS:** DO NOT apply single coat greater than 20 mils thick (80 sf per gallon).
- **UV Resistance:** All epoxy ambers over time. If color stability is important, use a UV-resistant top coat.
- Adding Poly Colorant may reduce working time by 5 minutes.

SURFACE PREPARATION GUIDELINES

Contact KRETUS® Technical Representative if substrate is not listed below.

Concrete Substrate Must Be

- **Clean:** Remove all release agents, curing compounds, salts, efflorescence, grease, oil, dust, and other contaminants or particles that would hinder material's adhesion to substrate.
- **Profiled:** New concrete should be allowed to dry a minimum of 28 days. Mechanically prepare concrete to ICRI CSP 3. Adhere to ICRI (International Concrete Repair Institute) current standards.
- **Sound:** Clean and treat all moving and nonmoving joints and cracks.

JOINT AND CRACK REPAIR

Coatings tend to pull away from termination points (anywhere concrete ends), joints, cracks, gutters, drains. Anchor joints may need to be added 6" from termination points. Joints and cracks may need to be expanded to 2x the width and 1x the depth.

MIXING GUIDELINES

Select a well-ventilated area outside of application zone and out of direct sunlight. Ideal mixing station is 4-by-4-foot or larger level surface protected by cardboard or plastic liner. For mixing station examples, review KRETUS® Mixing Station photo gallery available at kretus.com/project-planning.

Prepare Materials for Application

Organize and inspect products, equipment, and tools to minimize delays during installation. Group together the components and tools needed for each application:

- Urethane Polymer Concrete Parts A, B, C, and Colorant
- Urethane Polymer Concrete RC UV Parts A, B, C, Poly Accelerant, and Colorant
- Top Shelf® Epoxy Parts A, B, and Colorant
- Polyaspartic 72 Parts A, B, and Poly Colorant
- Polyaspartic 85 Parts A, B, and Poly Colorant
- Polyaspartic 92 Low Odor Parts A, B, and Poly Colorant
- Polyurethane HS Parts A, B, and Poly Colorant
- Polyurethane HP Parts A, B, and Poly Colorant
- Anti-Slip
- industrial sand

Examine the components for each application individually:

- **Anti-Slip and industrial sand:** Make sure material is dry and undamaged. Moisture will cause material to clump. Clumps should be sifted before combining with the other components.
- **Part A's:** Check to see that appearance is consistent throughout and that batch numbers are the same. If different batch numbers, box (or mix) batches to keep coating consistent throughout application.
- **Part B's:** Make sure there is no gelation or crystallization. If this occurs, contact your KRETUS® Technical Representative.
- **Part C's:** Make sure material is dry and undamaged. Moisture will cause material to clump. Clumps should be sifted before combining with the other components.
- **Colorant:** Check to see that color is correct and that batch numbers are the same. If different batch numbers, box (or mix) batches to keep coating consistent throughout application.

Pre-Mix Components

- Before combining any components, use a low-RPM, low-torque drill and a Jiffler double-bladed mixer to pre-mix each component separately until the texture, color, and consistency is uniform.
- Use a separate mixer for each product to avoid cross-contamination.
- DO NOT pre-mix dry materials.

Mixing Drill

- **Urethane Polymer Concrete:** high-RPM, high-torque drill and Jiffler double-bladed mixer
- **If adding industrial sand to Top Shelf® Epoxy:** high-RPM, high-torque drill and Jiffler double-bladed mixer
- **For all other coatings:** low-RPM, low-torque drill and Jiffler double-bladed mixer

Mixing Instructions

Mix carefully to avoid introducing bubbles into the mixture.

All mixing vessels must be clean. Pour entire contents of Part A into vessel first before adding other components. Change mixing buckets every 2-5 batches.

Use a paint stick to scrape sides and bottom of mixing vessel to ensure coating is thoroughly mixed. Buildup on bucket or transfer of buildup to a new batch affects the coating's overall appearance and may shorten a product's working time.

Make sure that material stays thoroughly mixed throughout application. DO NOT allow any material (sand, texture, etc.) to settle at the bottom of the mixing vessel.

Only combine products within the same product line. DO NOT mix one product's Part A with a different product's Part B or C. For example, only mix POLYASPARTIC 92 LOW ODOR Part B with POLYASPARTIC 92 LOW ODOR EZ, FAST, or XFC Part A.

URETHANE POLYMER CONCRETE RC UV

- If adding color, combine Colorant with Part A and mix for 15 seconds. If not adding color, skip this step.
- Slowly add Part C to Part A and mix for 2 minutes. Add Part B and mix for 30 seconds. Add Part D (Poly Accelerant) and mix for 30 seconds.
- If adding Anti-Slip, add this last and mix with coating for 1 minute.

URETHANE POLYMER CONCRETE RC

- If adding color, combine Colorant with Part A and mix for 15 seconds. If not adding color, skip this step.
- Slowly add Part C to Part A and mix for 2 minutes. Add Part B and mix for 30 seconds.

URETHANE POLYMER CONCRETE SL, MF, or TT

- If adding color, combine Colorant with Part A and mix for 15 seconds. If not adding color, skip this step.
- Add Part B to Part A and mix for 30 seconds. Slowly add Part C and mix for 1 minute.

TOP SHELF® EPOXY with INDUSTRIAL SAND

- Add Part B to Part A and mix for 1 minute. Slowly add Part C and mix for 1-2 minutes.

TOP SHELF® EPOXY, POLYURETHANE, or POLYASPARTIC

- If adding color, combine Colorant with Part A and mix until color is uniform. If not adding color, skip this step.
- Add Part B to Part A and mix for 1-2 minutes.
- If adding Anti-Slip, add this last and mix with coating for 1 minute.

Mixing Precautions

DO NOT mix more material than can be applied in the working time allotted.

DO NOT leave mixed material in mass. As soon as components are combined, the coating begins to cure and its temperature rises. If product is left in mass, the heat created may cause material to smoke or catch fire. Mixing large batches will create more heat and can shorten the product's working time.

DO NOT mix materials by hand.

DO NOT mix or install material in confined space without proper ventilation.

DO NOT allow dry material or texture to settle

DEW POINT CALCULATION

Adhere to the KRETUS® Dew Point Calculation Chart available at kretus.com/project-planning.

- To avoid blistering and delamination, the substrate and material must be a minimum of 5°F above the dew point. This temperature must be maintained throughout drying time.
- **EXAMPLE:** If the air temperature is 60°F and relative humidity is 60%, the Dew Point is 45°F. The temperature of the substrate must be ≥ 50°F (45 + 5) before a coating can be applied.

APPLICATION GUIDELINES

- After mixing, pour material in even rows along substrate. Spread material evenly using the appropriate tools to achieve the required thickness specified. Unless otherwise instructed, use a clean, non-shed 3/8" nap roller to back and cross roll material so that application is uniform across the entire substrate.
- Keep a wet edge while applying products. Wear shoes with rounded metal spikes when walking on material.
- DO NOT apply under direct sunlight. DO NOT install if inclement weather is forecasted during time allotted for installation.
- DO NOT let material puddle on floor—this will cause white spots to appear when coating cures.
- Coverage rates are for estimating purposes only. Factors such as waste, unusual/abnormal substrate conditions, and other unforeseen jobsite conditions may affect actual product yields and are the responsibility of the installer.

All Solvent-Based Products:

- ↑ higher temperature = ↓ shorter working time
- ↓ lower temperature = ↑ longer working time

Polyaspartic and Polyurethane Are Highly Sensitive to Humidity:

- ↑ higher humidity = ↓ shorter working time
- ↓ lower humidity = ↑ longer working time

DISCLAIMER: The information contained in this document is intended for use by KRETUS®-qualified and-trained professionals. This is not a legally binding document and does not release the specifier from their responsibility to apply materials correctly under the specific conditions of the construction site and the intended results of the construction process. The most current valid standards for testing and installation, acknowledged rules of technology, as well as KRETUS® technical guidelines must be always adhered to. The steps given in this document and other mentioned documents are critical to the success of your project.



EQUIPMENT CHECKLIST

Safety

- KRETUS® Safety Data Sheets
- gloves
- hard hat
- knee pads
- respirator
- safety glasses
- _____
- _____

Mixing

- variable speed mixing drill
- mixing blades (Jiffler double-bladed mixer)
- paint mixing sticks
- measuring pails
- 1-, 2-, and 5-gallon pails (metal and/or plastic)
- masking/rosin paper
- cardboard, painter's plastic
- painter's tape
- duct tape
- cooler and ice
- _____
- _____

Clean-Up

- rags
- stiff-bristle broom(s)
- cordless electric leaf blower and extra batteries
- _____
- _____

Additional Tools/Products

- industrial sand
- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____

Surface Preparation

- calcium chloride and pH test kit
- Wagner Rapid RH® test kit
- 10-gauge extension cords, 100'
- HEPA vacuum
- power source or generator
- Clarke 17" floor maintainer
- 17" sanding discs, 36 and 60 grit
- 17" sanding screens, 80 and 120 grit
- sanding/rubbing stones
- concrete grinding equipment
- diamond or shotblast tooling to achieve CSP 3
- _____
- _____

Application

- chip brushes
- Midwest Rake® Easy Squeegee™ and blades: flat rigid, flat flexible, and WFT-mil (3-5, 5-7, 8-12, 15-20, and 25-30 thicknesses)
- paint accessories—extension rods, frames, and pans
- 1/2" wide x 3/8" V-notched squeegee trowel
- gauge rake
- spiked shoes
- _____
- _____
- _____

KRETUS® PRODUCT CHECKLIST

- Anti-Slip
- Poly Colorant
- Polyaspartic (2 component)
- Polyurethane HS (2 component)
- Polyurethane HP (2 component)
- Top Shelf® Epoxy Colorant
- Top Shelf® Epoxy (2 component)
- Urethane Polymer Concrete Colorant
- Urethane Polymer Concrete (3 component)
- Urethane Polymer Concrete RC UV (4 component)
- Solvent Cleaner
- Power Cleaner
- _____

This serves as a general guide and is not a comprehensive list.

SYSTEM ACTION GUIDELINE



PRIME COAT WHEN REQUIRED

This serves as a general installation guide. Before you begin, review all relevant documents.

<p>NOTE: If outgassing is suspected or prevalent or if substrate is in poor condition or very porous, a prime coat may be required.</p> <p>EPOXY PRIME COAT: Use for Industrial Sand TS, DB TS, SG, and TG Systems.</p> <p>UPC (URETHANE POLYMER CONCRETE) PRIME COAT Use for Industrial Sand RC, DB RC, SL, MF, and TT Systems.</p>

	EPOXY PRIME COAT	UPC PRIME COAT
PRODUCT	A (Top Shelf® Epoxy Part A) + B (Top Shelf® Epoxy Part B) + optional SC (Solvent Cleaner)	A (UPC RC/TT Part A) + UCC (UPC Colorant) + C (UPC RC Part C) + B (UPC RC/TT Part B)
STANDARD KIT MIX RATIO	A:B = 1 gal:1/2 gal With optional Solvent Cleaner A:B:SC = 1 gal:1/2 gal:1 qt	A:UCC:C:B = 6 lbs:4 oz:6 lbs:6 lbs
MIXING INSTRUCTIONS	Mix A for 1 min or until mixture is uniform. Add B and mix for 1 min. If using SC, add SC and continue to mix for 1 min or until coating is uniform.	Mix A with UCC for 15 seconds. Slowly add C and mix for 2 min. Add B and continue to mix for 30 seconds.
METHOD/ TOOLS	Apply with flat rigid blade and 3/8" non-shed nap roller.	Apply with 5-7 WFT-mil blade. Use 3/8" non-shed nap roller to smooth application.
RECOAT TIME	Fast- and slow-cure hardeners available. See Product Guide.	Fast- and slow-cure hardeners available. See Product Guide.
COVERAGE RATE	450-600 SF/KIT	330-450 SF/KIT

SYSTEM ACTION GUIDELINE

INDUSTRIAL SAND ^{TS} 1/8"

This serves as a general installation guide. Before you begin, review all relevant documents.

NOTE: **PRIME COAT:** If outgassing is suspected or prevalent or if concrete is in poor condition or very porous, a prime coat may be required.
MVER: If MVER is ≥ 3 -10 lbs, select a system with higher moisture tolerance.
COVERAGE RATES: Factors such as waste, unusual/abnormal substrate conditions, and other unforeseen jobsite conditions may affect actual product yields and are the responsibility of the installer. Coverage rates are for estimating purposes only.

	1 BASE COAT	2 BROADCAST	3 SAND & SWEEP	4 CAP COAT	5 TOP COAT
PRODUCT	A (Top Shelf® Epoxy Part A) + B (Top Shelf® Epoxy Part B)	KRETUS®-approved industrial sand	80-grit sanding disc and for small areas: pole sander for large areas: floor maintainer	See Cap Coat Options on page 18.	See Top Coat Options on page 19.
STANDARD KIT MIX RATIO	A:B = 1 gal:1/2 gal	N/A	N/A		
MIXING INSTRUCTIONS	Mix A for 1 min or until mixture is uniform. Add B and mix for 2 min.	N/A	N/A		
METHOD/ TOOLS	Work in 200-500 SF increments: 1. Apply coating with blade. Use 3/8" non-shed nap roller to smooth application. <ul style="list-style-type: none"> • 60- or 30-mesh sand: Use 8-12 WFT-mil blade. • 20-mesh sand: Use 15-20 WFT-mil blade. 2. If using fast-cure hardeners, wait 5 min. For other hardeners, wait 10-15 min. 3. Broadcast media to refusal.		When coat is dry, sand any uneven surfaces. Vacuum and remove any loose material.		
RECOAT TIME	Fast- and slow-cure hardeners available. See Product Guide.		When loose material is removed and surface is clean.		
COVERAGE RATE	60- or 30-mesh: 210-300 SF/KIT 20-mesh: 120-160 SF/KIT	60-mesh: 0.35-0.75 LB/SF 30-mesh: 0.25-0.50 LB/SF 20-mesh: 0.25 LB/SF	N/A		

SYSTEM ACTION GUIDELINE



INDUSTRIAL SAND ^{RC} 1/16-1/8"

This serves as a general installation guide. Before you begin, review all relevant documents.

<p>NOTE: UPC = Urethane Polymer Concrete.</p> <p>PRIME COAT: If outgassing is suspected or prevalent or if concrete is in poor condition or very porous, a prime coat may be required.</p> <p>MVER: If MVER is ≥ 15 lbs, select a system with higher moisture tolerance.</p> <p>COVERAGE RATES: Factors such as waste, unusual/abnormal substrate conditions, and other unforeseen jobsite conditions may affect actual product yields and are the responsibility of the installer. Coverage rates are for estimating purposes only.</p>
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	1 BASE COAT	2 BROADCAST	3 SAND & SWEEP	4 CAP COAT	5 TOP COAT
PRODUCT	A (UPC RC/TT Part A) + UCC (UPC Colorant) + C (UPC RC Part C) + B (UPC RC/TT Part B)	KRETUS®-approved industrial sand	80-grit sanding disc and for small areas: pole sander for large areas: floor maintainer	See Cap Coat Options on page 18.	See Top Coat Options on page 19.
STANDARD KIT MIX RATIO	A:UCC:C:B = 6 lbs:4 oz:6 lbs:6 lbs	N/A	N/A		
MIXING INSTRUCTIONS	Mix A with UCC for 15 seconds. Slowly add C and mix for 2 min. Add B and continue to mix for 30 seconds.	N/A	N/A		
METHOD/ TOOLS	<p>Work in 200-500 SF increments:</p> <ol style="list-style-type: none"> Apply coating with blade. Use 3/8" non-shed nap roller to smooth application. <ul style="list-style-type: none"> 60- or 30-mesh sand: Use 8-12 WFT-mil blade. 20-mesh sand: Use 15-20 WFT-mil blade. If using fast-cure hardeners, wait 5 min. For other hardeners, wait 10-15 min. Broadcast media to refusal. 		When coat is dry, sand any uneven surfaces. Vacuum and remove any loose material.		
RECOAT TIME	Fast- and slow-cure hardeners available. See Product Guide.		When loose material is removed and surface is clean.		
COVERAGE RATE	<p>60- or 30-mesh: 190-280 SF/KIT</p> <p>20-mesh: 120-150 SF/KIT</p>	<p>60-mesh: 0.35-0.75 LB/SF</p> <p>30-mesh: 0.25-0.50 LB/SF</p> <p>20-mesh: 0.25 LB/SF</p>	N/A		

SYSTEM ACTION GUIDELINE

INDUSTRIAL SAND ^{DB TS} 3/16"

This serves as a general installation guide. Before you begin, review all relevant documents.

NOTE: **PRIME COAT:** If outgassing is suspected or prevalent or if concrete is in poor condition or very porous, a prime coat may be required.
MVER: If MVER is ≥ 3 -10 lbs, select a system with higher moisture tolerance.
COVERAGE RATES: Factors such as waste, unusual/abnormal substrate conditions, and other unforeseen jobsite conditions may affect actual product yields and are the responsibility of the installer. Coverage rates are for estimating purposes only.

	1 BASE COAT	2 BROADCAST	3 SAND & SWEEP	4 REPEAT	5 CAP COAT	6 TOP COAT
PRODUCT	A (Top Shelf® Epoxy Part A) + B (Top Shelf® Epoxy Part B)	KRETUS®-approved industrial sand	80-grit sanding disc and for small areas: pole sander for large areas: floor maintainer	Repeat steps 1-3 for double broadcast. See 2nd Coat for application method, tools, and coverage rates.	See Cap Coat Options on page 18.	See Top Coat Options on page 19.
STANDARD KIT MIX RATIO	A:B = 1 gal:1/2 gal	N/A	N/A			
MIXING INSTRUCTIONS	Mix A for 1 min or until mixture is uniform. Add B and mix for 2 min.	N/A	N/A			
METHOD/ TOOLS	Work in 200-500 SF increments: 1. Apply coating with blade. Smooth application with 3/8" non-shed nap roller. 1st Coat <ul style="list-style-type: none"> • 60- or 30-mesh sand: Use 8-12 WFT-mil blade. • 20-mesh sand: Use 15-20 WFT-mil blade. 2nd Coat: Use flat rigid blade. 2. If using fast-cure hardeners, wait 5 min. For other hardeners, wait 10-15 min. 3. Broadcast media to refusal.		When coat is dry, sand any uneven surfaces. Vacuum and remove any loose material.			
RECOAT TIME	Fast- and slow-cure hardeners available. See Product Guide.		When loose material is removed and surface is clean.			
COVERAGE RATE	1st Coat <ul style="list-style-type: none"> • 60- or 30-mesh: 210-300 SF/KIT • 20-mesh: 120-160 SF/KIT 2nd Coat <ul style="list-style-type: none"> • 60-mesh: 200-260 SF/KIT • 30-mesh: 170-230 SF/KIT • 20-mesh: 120-170 SF/KIT 	1st and 2nd Coat <ul style="list-style-type: none"> • 60-mesh: 0.35-0.75 LB/SF • 30-mesh: 0.25-0.50 LB/SF • 20-mesh: 0.25 LB/SF 	N/A			

SYSTEM ACTION GUIDELINE



INDUSTRIAL SAND ^{DB RC} 3/16"

This serves as a general installation guide. Before you begin, review all relevant documents.

NOTE: **UPC** = Urethane Polymer Concrete. **PRIME COAT:** If outgassing is suspected or prevalent or if concrete is in poor condition or very porous, a prime coat may be required. **MVER:** If MVER is ≥ 15 lbs, select a system with higher moisture tolerance. **COVERAGE RATES:** Factors such as waste, unusual/abnormal substrate conditions, and other unforeseen jobsite conditions may affect actual product yields and are the responsibility of the installer. Coverage rates are for estimating purposes only.

	1 BASE COAT	2 BROADCAST	3 SAND & SWEEP	4 REPEAT	5 CAP COAT	6 TOP COAT
PRODUCT	A (UPC RC/TT Part A) + UCC (UPC Colorant) + C (UPC RC Part C) + B (UPC RC/TT Part B)	KRETUS®-approved industrial sand	80-grit sanding disc and for small areas: pole sander for large areas: floor maintainer	Repeat steps 1-3 for double broadcast. See 2nd Coat for application method, tools, and coverage rates.	See Cap Coat Options on page 18.	See Top Coat Options on page 19.
STANDARD KIT MIX RATIO	A:UCC:C:B = 6 lbs:4 oz:6 lbs:6 lbs	N/A	N/A			
MIXING INSTRUCTIONS	Mix A with UCC for 15 seconds. Slowly add C and mix for 2 min. Add B and continue to mix for 30 seconds.	N/A	N/A			
METHOD/ TOOLS	Work in 200-500 SF increments: 1. Apply coating with blade. Smooth application with 3/8" non-shed nap roller. 1st Coat <ul style="list-style-type: none"> • 60- or 30-mesh sand: Use 8-12 WFT-mil blade. • 20-mesh sand: Use 15-20 WFT-mil blade. 2nd Coat: Use flat rigid blade. 2. If using fast-cure hardeners, wait 5 min. For other hardeners, wait 10-15 min. 3. Broadcast media to refusal.		When coat is dry, sand any uneven surfaces. Vacuum and remove any loose material.			
RECOAT TIME	Fast- and slow-cure hardeners available. See Product Guide.		When loose material is removed and surface is clean.			
COVERAGE RATE	1st Coat <ul style="list-style-type: none"> • 60- or 30-mesh: 190-280 SF/KIT • 20-mesh: 120-150 SF/KIT 2nd Coat <ul style="list-style-type: none"> • 60-mesh: 200-250 SF/KIT • 30-mesh: 150-200 SF/KIT • 20-mesh: 100-150 SF/KIT 	1st and 2nd Coat <ul style="list-style-type: none"> • 60-mesh: 0.35-0.75 LB/SF • 30-mesh: 0.25-0.50 LB/SF • 20-mesh: 0.25 LB/SF 	N/A			

SYSTEM ACTION GUIDELINE


INDUSTRIAL SAND ^{SG} 3/16-1/4"

This serves as a general installation guide. Before you begin, review all relevant documents.

NOTE: **PRIME COAT:** If outgassing is suspected or prevalent or if concrete is in poor condition or very porous, a prime coat may be required.
MVER: If MVER is ≥ 3 -10 lbs, select a system with higher moisture tolerance.
COVERAGE RATES: Factors such as waste, unusual/abnormal substrate conditions, and other unforeseen jobsite conditions may affect actual product yields and are the responsibility of the installer. Coverage rates are for estimating purposes only.

	1 BASE COAT	2 BROADCAST	3 SAND & SWEEP	4 CAP COAT	5 TOP COAT
PRODUCT	A (Top Shelf® Epoxy Part A) + B (Top Shelf® Epoxy Part B) + C (Top Shelf® Epoxy Part C, SG)	KRETUS®-approved industrial sand	80-grit sanding disc and for small areas: pole sander for large areas: floor maintainer	See Cap Coat Options on page 18.	See Top Coat Options on page 19.
STANDARD KIT MIX RATIO	A:B:C = 1 gal:1/2 gal:25 lbs	N/A	N/A		
MIXING INSTRUCTIONS	Mix A for 1 min or until mixture is uniform. Add B and mix for 1 min. Slowly add C and mix for 1 min.	N/A	N/A		
METHOD/ TOOLS	Work in 200-500 SF increments: 1. Apply coating using trowel or a gauge rake and CAM set. Use spiked and/or loop roller to smooth application. <ul style="list-style-type: none"> • 3/16" system: Use size 2 CAM (1/8") with gauge rake. • 1/4" system: Use size 3 CAM (3/16") with gauge rake. 2. If using fast-cure hardeners, wait 5 min. For other hardeners, wait 10-15 min. 3. Broadcast media to refusal.		When coat is dry, sand any uneven surfaces. Vacuum and remove any loose material.		
RECOAT TIME	Fast- and slow-cure hardeners available. See Product Guide.		When loose material is removed and surface is clean.		
COVERAGE RATE	3/16" system: 50-60 SF/KIT at 1/8" high 1/4" system: 35-40 SF/KIT at 3/16" high	60-, 30-, or 20-mesh: 1 LB/SF	N/A		

SYSTEM ACTION GUIDELINE



INDUSTRIAL SAND ^{SI} 3/16-1/4"

This serves as a general installation guide. Before you begin, review all relevant documents.

<p>NOTE: UPC = Urethane Polymer Concrete.</p> <p>PRIME COAT: If outgassing is suspected or prevalent or if concrete is in poor condition or very porous, a prime coat may be required.</p> <p>MVER: If MVER is ≥ 15 lbs, contact a KRETUS® Technical Representative.</p> <p>COVERAGE RATES: Factors such as waste, unusual/abnormal substrate conditions, and other unforeseen jobsite conditions may affect actual product yields and are the responsibility of the installer. Coverage rates are for estimating purposes only.</p>
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	1 BASE COAT	2 BROADCAST	3 SAND & SWEEP	4 CAP COAT	5 TOP COAT
PRODUCT	A (UPC SL/MF Part A) + UCC (UPC Colorant) + B (UPC SL/MF Part B) + C (UPC SL Part C)	KRETUS®-approved industrial sand	80-grit sanding disc and for small areas: pole sander for large areas: floor maintainer	See Cap Coat Options on page 18.	See Top Coat Options on page 19.
STANDARD KIT MIX RATIO	A:UCC:B:C = 8 lbs:4 oz:8 lbs:25 lbs	N/A	N/A		
MIXING INSTRUCTIONS	Mix A with UCC for 15 seconds. Add B and continue to mix for 30 seconds. Slowly add C and mix for 2 min.	N/A	N/A		
METHOD/ TOOLS	<p>Work in 200-500 SF increments:</p> <ol style="list-style-type: none"> Apply coating using trowel or a gauge rake and CAM set. Use spiked and/or loop roller to smooth application. <ul style="list-style-type: none"> 3/16" system: Use size 2 CAM (1/8") with gauge rake. 1/4" system: Use size 3 CAM (3/16") with gauge rake. If using fast-cure hardeners, wait 5 min. For other hardeners, wait 10-15 min. Broadcast media to refusal. 		When coat is dry, sand any uneven surfaces. Vacuum and remove any loose material.		
RECOAT TIME	Fast- and slow-cure hardeners available. See Product Guide.		When loose material is removed and surface is clean.		
COVERAGE RATE	3/16" system: 50-60 SF/KIT at 1/8" high 1/4" system: 35-40 SF/KIT at 3/16" high	60-, 30-, or 20-mesh: 1 LB/SF	N/A		

SYSTEM ACTION GUIDELINE

INDUSTRIAL SAND ^{MF} 3/16-1/4"

This serves as a general installation guide. Before you begin, review all relevant documents.

NOTE: UPC = Urethane Polymer Concrete.

PRIME COAT: If outgassing is suspected or prevalent or if concrete is in poor condition or very porous, a prime coat may be required.

MVER: If MVER is ≥ 15 lbs, contact a KRETUS® Technical Representative.

COVERAGE RATES: Factors such as waste, unusual/abnormal substrate conditions, and other unforeseen jobsite conditions may affect actual product yields and are the responsibility of the installer. Coverage rates are for estimating purposes only.

	1 BASE COAT	2 BROADCAST	3 SAND & SWEEP	4 CAP COAT	5 TOP COAT
PRODUCT	A (UPC SL/MF Part A) + UCC (UPC Colorant) + B (UPC SL/MF Part B) + C (UPC MF Part C)	KRETUS®-approved industrial sand	80-grit sanding disc and for small areas: pole sander for large areas: floor maintainer	See Cap Coat Options on page 18.	See Top Coat Options on page 19.
STANDARD KIT MIX RATIO	A:UCC:B:C= 8 lbs:4 oz:8 lbs:40 lbs	N/A	N/A		
MIXING INSTRUCTIONS	Mix A with UCC for 15 seconds. Add B and continue to mix for 30 seconds. Slowly add C and mix for 2 min.	N/A	N/A		
METHOD/ TOOLS	Work in 200-500 SF increments: 1. Apply coating using trowel or a gauge rake and CAM set. Use spiked and/or loop roller to smooth application. <ul style="list-style-type: none"> • 3/16" system: Use size 2 CAM (1/8") with gauge rake. • 1/4" system: Use size 3 CAM (3/16") with gauge rake. 2. If using fast-cure hardeners, wait 5 min. For other hardeners, wait 10-15 min. 3. Broadcast media to refusal.		When coat is dry, sand any uneven surfaces. Vacuum and remove any loose material.		
RECOAT TIME	Fast- and slow-cure hardeners available. See Product Guide.		When loose material is removed and surface is clean.		
COVERAGE RATE	3/16" system: 60 SF/KIT at 1/8" high 1/4" system: 35 SF/KIT at 3/16" high	60-, 30-, or 20-mesh: 1 LB/SF	N/A		

SYSTEM ACTION GUIDELINE



INDUSTRIAL SAND ^{TG} 1/4-3/8"

This serves as a general installation guide. Before you begin, review all relevant documents.

NOTE: MUST INCLUDE PRIME COAT: This system (Industrial Sand TT) requires a prime coat. The prime coat must remain tacky for the mortar coat to adhere. If the prime coat begins to dry, apply more material before installing the mortar coat.

MVER: If MVER is ≥ 3 -10 lbs, select a system with higher moisture tolerance.

COVERAGE RATES: Factors such as waste, unusual/abnormal substrate conditions, and other unforeseen jobsite conditions may affect actual product yields and are the responsibility of the installer. Coverage rates are for estimating purposes only.

	1 PRIME COAT	2 MORTAR COAT	3 SAND & SWEEP	4 CAP COAT	5 TOP COAT
PRODUCT	A (Top Shelf® Epoxy Part A) + B (Top Shelf® Epoxy Part B) + optional SC (Solvent Cleaner)	A (Top Shelf® Epoxy Part A) + B (Top Shelf® Epoxy Part B) + C (KRETUS®-approved industrial sand)	80-grit sanding disc and for small areas: pole sander for large areas: floor maintainer	See Cap Coat Options on page 18.	See Top Coat Options on page 19.
STANDARD KIT MIX RATIO	A:B = 1 gal:1/2 gal With optional Solvent Cleaner A:B:SC = 1 gal:1/2 gal:1 qt	A:B:C = 1 gal:1/2 gal:100 lbs	N/A		
MIXING INSTRUCTIONS	Mix A for 1 min or until mixture is uniform. Add B and mix for 1 min. If using SC, add SC and continue to mix for 1 min.	Mix A for 1 min or until mixture is uniform. Add B and mix for 1 min. Slowly add C and mix for 1 min.	N/A		
METHOD/ TOOLS	Work in 200-500 SF increments: 1. Apply prime coat with flat rigid blade and 3/8" non-shed nap roller. 2. Apply mortar coat immediately over prime coat with a trowel, screed box, or CAM set and gauge rake. If using screed box, overlap each application by 1". If using gauge rake, use a 3/16" CAM (size 3) for 1/4" system. Use a 5/16" CAM (size 5) for 3/8" system. 3. Smooth application and fill in any gaps with hand trowel. A power trowel may be used with care. Extreme power-troweling may cause blistering. Use hand trowel in areas near vertical surfaces. Pay special attention to sloping for proper drainage.		When coat is dry, sand any uneven surfaces. Vacuum and remove any loose material.		
RECOAT TIME	Fast- and slow-cure hardeners available. See Product Guide.		When loose material is removed and surface is clean.		
COVERAGE RATE	450-600 SF/KIT	1/4" system: 44-48 SF/KIT at 3/16" high 3/8" system: 22-24 SF/KIT at 5/16" high	N/A		

SYSTEM ACTION GUIDELINE



INDUSTRIAL SAND TT 1/4-3/8"

This serves as a general installation guide. Before you begin, review all relevant documents.

NOTE: UPC = Urethane Polymer Concrete.
PRIME COAT: If outgassing is suspected or prevalent or if concrete is in poor condition or very porous, a prime coat may be required.
MVER: If MVER is ≥15 lbs, contact a KRETUS® Technical Representative.
COVERAGE RATES: Factors such as waste, unusual/abnormal substrate conditions, and other unforeseen jobsite conditions may affect actual product yields and are the responsibility of the installer. Coverage rates are for estimating purposes only.

	1 BASE COAT	2 BROADCAST	3 SAND & SWEEP	4 CAP COAT	5 TOP COAT
PRODUCT	A (UPC RC/TT Part A) + UCC (UPC Colorant) + B (UPC RC/TT Part B) + C (UPC TT Part C)	KRETUS®-approved industrial sand	80-grit sanding disc and for small areas: pole sander for large areas: floor maintainer	See Cap Coat Options on page 18.	See Top Coat Options on page 19.
STANDARD KIT MIX RATIO	A:UCC:B:C = 6 lbs:4 oz:6 lbs:42 lbs	N/A	N/A		
MIXING INSTRUCTIONS	Mix A with UCC for 15 seconds. Add B and continue to mix for 30 seconds. Slowly add C and mix for 2 min.	N/A	N/A		
METHOD/ TOOLS	Work in 200-500 SF increments: 1. Apply coating with trowel. Use spiked or loop roller to smooth application. If using loop roller, apply steady pressure throughout application. Unsteady pressure may result in an uneven coating. 2. If using fast-cure hardener, wait 5 min. For other hardeners, wait 10-15 min. 3. Broadcast media to refusal.		When coat is dry, sand any uneven surfaces. Vacuum and remove any loose material.		
RECOAT TIME	Fast- and slow-cure hardeners available. See Product Guide.		When loose material is removed and surface is clean.		
COVERAGE RATE	1/4" system: 24-26 SF/KIT at 3/16" high 3/8" system: 22-23 SF/KIT at 1/4" high	60-, 30-, or 20-mesh: 1 LB/SF	N/A		

SYSTEM ACTION GUIDELINE

SYSTEM OPTIONS CAP COAT



This serves as a general installation guide. Before you begin, review all relevant documents.

NOTE: **COVERAGE RATES:** Rates may vary based on the size, type, and brand of sand used. Factors such as waste, unusual/abnormal substrate conditions, and other unforeseen jobsite conditions may affect actual product yields and are the responsibility of the installer. Coverage rates are for estimating purposes only.

	OPTION 1 TOP SHELF® EPOXY	OPTION 2 UPC RC	OPTION 3 POLYASPARTIC	OPTION 4 POLYURETHANE HS	OPTION 5 UPC UV
PRODUCT	A (pigmented Top Shelf® Epoxy Part A) + B (Top Shelf® Epoxy Part B)	A (UPC RC/TT Part A) + UCC (UPC Colorant) + C (UPC RC Part C) + B (UPC RC/TT Part B)	A (Polyaspartic Part A) + PC (Poly Colorant) + B (Polyaspartic Part B)	A (Polyurethane HS Part A) + PC (Poly Colorant) + B (Polyurethane HS Part B)	A (UPC RC/TT Part A) + UCC (UPC Colorant) + C (UPC RC Part C) + B (UPC RC UV AP Part B) + D (Poly Accelerant)
STANDARD KIT MIX RATIO	A:B = 1 gal:1/2 gal	A:UCC:C:B = 6 lbs.:4 oz: 6 lbs:6 lbs	A:PC:B = 1 gal:16 oz:1 gal	A:PC:B = 1 gal:16 oz:1/2 gal	A:UCC:C:B:D = 6 lbs.:4 oz: 6 lbs:6 lbs:1-6 oz
MIXING INSTRUCTIONS	Mix A for 1 min or until color is uniform. Add B and mix for 1-2 min or until coating is uniform.	Mix A with UCC for 15 seconds. Slowly add C and mix for 2 min. Add B and continue to mix for 30 seconds or until coating is uniform.	Mix A with PC until color is uniform. Add B and mix for 2 min or until coating is uniform.	Mix A with PC until color is uniform. Add B and mix for 2 min or until coating is uniform.	Mix A with UCC for 15 seconds. Slowly add C and mix for 2 min. Add B and continue to mix for 30 seconds. Add D and mix for 30 seconds or until coating is uniform.
METHOD/ TOOLS	Apply with flat rigid blade. Use 3/8" non-shed nap roller to smooth application.	Apply with flat rigid blade. Use 3/8" non-shed nap roller to smooth application.	Apply with flat rigid blade. Use 3/8" non-shed nap roller to smooth application.	Apply with flat rigid blade. Use 3/8" non-shed nap roller to smooth application.	Apply with flat rigid blade. Use 3/8" non-shed nap roller to smooth application.
RECOAT TIME	Fast- and slow-cure hardeners available. See Product Guide.	See Product Guide.	Fast- and slow-cure hardeners available. See Product Guide.	Fast- and slow-cure hardeners available. See Product Guide.	See Product Guide.
COVERAGE RATE	60-mesh: 200-260 SF/KIT 30-mesh: 170-230 SF/KIT 20-mesh: 120-170 SF/KIT	60-mesh: 200-250 SF/KIT 30-mesh: 150-200 SF/KIT 20-mesh: 100-150 SF/KIT	60-mesh: 270-350 SF/KIT 30-mesh: 230-300 SF/KIT 20-mesh: 160-230 SF/KIT	60-mesh: 200-260 SF/KIT 30-mesh: 170-230 SF/KIT 20-mesh: 120-170 SF/KIT	60-mesh: 200-250 SF/KIT 30-mesh: 150-200 SF/KIT 20-mesh: 100-150 SF/KIT

SYSTEM ACTION GUIDELINE

SYSTEM OPTIONS **TOP COAT**



This serves as a general installation guide. Before you begin, review all relevant documents.

NOTE: **POLYURETHANE HP:** High-performance (HP) Polyurethane cannot be applied directly over sand and should not be used as a cap coat.
COVERAGE RATES: Rates may vary based on the size, type, and brand of sand used. Factors such as waste, unusual/abnormal substrate conditions, and other unforeseen jobsite conditions may affect actual product yields and are the responsibility of the installer. Coverage rates are for estimating purposes only.

	OPTION 1 TOP SHELF® EPOXY	OPTION 2 POLYASPARTIC	OPTION 3 POLYURETHANE HS	OPTION 4 POLYURETHANE HP	OPTION 5 UPC RC UV
PRODUCT	A (pigmented Top Shelf® Epoxy Part A) + B (Top Shelf® Epoxy Part B) + T (Anti-Slip Bead 100)	A (Polyaspartic Part A) + PC (Poly Colorant) + B (Polyaspartic Part B) + T (Anti-Slip Bead 100)	A (Polyurethane HS Part A) + PC (Poly Colorant) + B (Polyurethane HS Part B) + T (Anti-Slip Bead 100)	A (Polyurethane HP Part A) + PC (Poly Colorant) + B (Polyurethane HP Part B) + T (Anti-Slip Bead 100)	A (UPC RC/TT Part A) + UCC (UPC Colorant) + C (UPC RC Part C) + B (UPC RC UV AP Part B) + D (Poly Accelerant) + T (Anti-Slip Bead 50)
STANDARD KIT MIX RATIO	A:B:T = 1 gal:1/2 gal:12 oz	A:B:T = 1 gal:1 gal:12 oz	A:B:T = 1 gal:1/2 gal:12 oz	HP GLOSS A:B:T = 1 qt:1 gal:12 oz HP SATIN A:B:T = 1/2 gal:1 gal:12 oz	A:UCC:C:B:D:T = 6 lbs.:4 oz: 6 lbs:6 lbs:1-6 oz:24 oz
MIXING INSTRUCTIONS	Mix A for 1 min or until color is uniform. Add B and mix for 1-2 min. Slowly add T and mix until coating is uniform.	Mix A with B for 1-2 min. Slowly add T and mix until coating is uniform.	Mix A with B for 1-2 min. Slowly add T and mix until coating is uniform.	Mix A with B for 1-2 min. Slowly add T and mix until coating is uniform.	Mix A with UCC for 15 seconds. Slowly add C and mix for 2 min. Add B and continue mixing for 30 seconds. Add D and T and mix for 30 seconds or until coating is uniform.
METHOD/ TOOLS	Apply with flat flexible blade. Use 3/8" non-shed nap roller to smooth application.	Apply with flat flexible blade. Use 3/8" non-shed nap roller to smooth application.	Apply with flat flexible blade. Use 3/8" non-shed nap roller to smooth application.	Apply a smooth, even coat using the dip-and-roll method with a 3/8" non-shed nap roller.	Apply with 8-12 WFT-mil blade. Use 3/8" non-shed nap roller to smooth application.
RECOAT TIME	Fast- and slow-cure hardeners available. See Product Guide.	Fast- and slow-cure hardeners available. See Product Guide.	Fast- and slow-cure hardeners available. See Product Guide.	See product guide.	See Product Guide.
COVERAGE RATE	400-560 SF/KIT	450-640 SF/KIT	340-480 SF/KIT	HP GLOSS 575-625 SF/KIT HP SATIN 675-725 SF/KIT	190-280 SF/KIT



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