



THOUGHTFULLY DESIGNED COATINGS

METALLIC

installation guide



www.kretus.com/metallic

INSTALLATION GUIDE: KRETUS® METALLIC SYSTEMS

This guide provides general installation instructions for KRETUS® Metallic Systems. Review all relevant documentation before beginning work.

WHO THIS GUIDE IS FOR

This guide is intended for professional installers trained to apply KRETUS® systems.

WHAT YOU'LL FIND IN THIS GUIDE

This guide includes general requirements that apply to all Color Quartz systems:

- safety
- maintenance & cleaning
- mixing
- testing & warranty
- surface preparation
- application

On the back pages of this guide, you'll find System Action Guidelines. A **System Action Guideline (SAG)** is a quick-reference page that shows:

- which products are used for a specific system
- the order of installation steps
- basic mix ratios, application tools, and coverage rates

METALLIC SYSTEMS COVERED IN THIS GUIDE

Epoxy Metallic

Epoxy coats with different top coat options

- **MVR-TS-ME-AM/HY/HP/HS**

Epoxy MVR coat, epoxy base coat, metallic epoxy metallic coat, with multiple top coat options

SYSTEM CODE KEY (APPLIES TO ALL SYSTEMS)

System codes are used internally to identify system components and installation steps and are provided here for clarity.

AM = Aliphatic MC	ME = Metallic Epoxy
HP = Polyurethane HP	MET = Metallic System
HS = Polyurethane HS	MVR = Moisture Vapor Reducer
HY = Hydrothane	TS = Top Shelf® Epoxy

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.

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

- **Application temperatures:** Apply material when temperature is decreasing. If application temperatures are outside of those recommended, contact your KRETUS® Technical Representative.
- **Mock-ups:** Complete samples and onsite mockups to ensure desired results are achieved.
- **Poly Colorant:** Adding Poly Colorant may reduce working time by 5 minutes.
- **Polyurethane HP:** DO NOT install directly over broadcasted chip, 30-mesh or larger quartz or sand, or 80-mesh or larger aluminum oxide. DO NOT apply any single coat greater than 5 mils thick (320 square feet per gallon).
- **Polyurethane HS:** DO NOT apply any single coat greater than 20 mils thick (80 square feet per gallon).
- **Prime coat:** Where outgassing is suspected or prevalent or if concrete is especially porous or in poor condition, a prime coat may be required.
- **Repair:** All substrate/concrete repairs must be completed before installing any system.
- **UV resistance:** All epoxy and non-UV Urethane Polymer Concrete will amber over time. If color stability is important, use UV-resistant top coats.
- **Weather conditions:** DO NOT apply under direct sunlight. DO NOT install under inclement weather conditions.

SURFACE PREPARATION GUIDELINES

Contact your 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. Required CSP may vary based on the condition of concrete. 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 inches from termination points. Joints and cracks may need to be expanded to 2x the width and 1x the depth.

MATERIAL PREP AND MIXING

While each KRETUS® product has specific mixing instructions, most coatings follow this general process:

1. **Prepare** the mixing station and organize materials for installation.
2. **Inspect** all components for batch numbers, color consistency, and material condition.
3. **Check** that all equipment is clean and in good working condition.
4. **Combine** components in the order listed in the Technical Data Sheet (TDS).
5. **Mix** each component until uniform before adding the next. Slowly add dry materials (if required) while continuing to mix to prevent settling. Mix until all components are fully incorporated, then immediately transfer material to installation surface.

Always follow the TDS for exact mixing order, ratio, and times. For help with mixing station setup, go to kretus.com/project-planning.

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 $\geq 50^{\circ}\text{F}$ ($45 + 5$) before a coating can be applied.

APPLICATION GUIDELINES

- **Applying material:** After mixing, pour material in even rows along the substrate. Spread material evenly using the appropriate tools to achieve the required thickness specified. DO NOT let material puddle on floor—this will cause white spots to appear when coating cures.
- **Wet edge:** Keep a wet edge while applying products.
- **Spiked shoes:** Wear shoes with rounded metal spikes when walking on wet material.
- **Nap roller:** When using a 3/8-inch non-shed nap roller to smooth the coating, always roll in the same direction. Start each row from the same end. If you roll back and forth or switch directions, it may leave roller marks.

Solvent-Based Products:

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

Polyaspartic, Polyurethane, and Select Poly Products Are Highly Sensitive to Humidity:

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

Disclaimer: This document is intended for Kretus-trained professionals. It is not legally binding and does not remove the user's or specifier's responsibility to ensure materials are used appropriately for the project and job site. Always follow the most current industry standards and Kretus technical guidelines. **Note:** Subject to change without notice. For the latest version, visit kretus.com.

EQUIPMENT CHECKLIST

Safety

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

Mixing

- ☐ variable speed mixing drill
- ☐ mixing blades (Jiffier-style 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

- ☐ KRETUS® Cleaners (Coating, Power, Solvent)
- ☐ rags
- ☐ stiff-bristle broom(s)
- ☐ cordless electric leaf blower and extra batteries
- ☐ _____
- ☐ _____

Additional Tools/Products

- ☐ 40-S pigmented color quartz (for broadcast)
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____

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/shotblast tooling to achieve specified CSP
- ☐ _____
- ☐ _____

Application

- ☐ chip brushes
- ☐ paint accessories (extension rods, frames, pans)
- ☐ non-shed rollers (spike, loop, 3/8" nap)
- ☐ Midwest Rake® squeegees/blades (flat and WFT-mil)
- ☐ 1/2" wide x 3/8" V-notched squeegee
- ☐ trowels (cove, flat, margin)
- ☐ gauge rake and CAM set
- ☐ spiked shoes
- ☐ _____
- ☐ _____

KRETUS® PRODUCT CHECKLIST

- ☐ Aliphatic MC (1 component)
- ☐ Anti-Slip
- ☐ Hydrothane™ (2 component)
- ☐ Metallic Epoxy (2 component)
- ☐ Polyurethane HP (2 component)
- ☐ Polyurethane HS (2 component)
- ☐ Top Shelf® Epoxy Colorant
- ☐ Top Shelf® Epoxy (2 component)
- ☐ Top Shelf® Epoxy MVR (2 component)
- ☐ _____
- ☐ _____

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

SYSTEM ACTION GUIDELINE

METALLIC MVR-TS-ME-AM/HY/HP/HS, 60 MILS

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. If bubbling occurs, follow Sand & Sweep Procedure (see Step 4), then apply a second Metallic Prime Coat.

PIGMENTS/COLORANTS/ANTI-SLIP: After combining Metallic Pigment and Part A, cover mixture and allow it to set for at least 20 min but no more than 24 hrs. Light colors may require a 2nd coat. Continue to mix combined coatings throughout application to ensure no particles settle to the bottom of the mixing vessel.

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 MVR COAT	2 BASE COAT	3 METALLIC COAT	4 TOP COAT
PRODUCT	A (Top Shelf® Epoxy Part A - CR-Resin) + B (Top Shelf® Epoxy Part B - MVR-FC or MVR-EZ)	A (Top Shelf® Epoxy Part A - Commercial-Resin) + C (Top Shelf® Epoxy Colorant) + B (Top Shelf® Epoxy Part B - TH)	A (Metallic Epoxy Part A, M-Resin) + MP (Metallic Pigment) + B (Metallic Epoxy, Part B)	See System Options on page 7.
STANDARD KIT MIX RATIO	A:B = 1 gal+1/2 gal	A:C:B = 1 gal+8-16 oz+1/2 gal	A:MP:B = 1 gal: 4-8 oz: 1/2 gal	
MIXING INSTRUCTIONS	Mix A and B for 1-2 min or until consistency is uniform.	Mix A with C until color is uniform. Add B and mix for 1-2 min or until consistency is uniform.	Mix A with MP. Add B and mix for 2 minutes or until color is uniform.	
METHOD/ TOOLS	Apply with 15-20 WFT-mil blade. Smooth application with 3/8" non-shed nap roller.	Apply with 8-12 WFT-mil blade. Smooth application with 3/8" non-shed nap roller.	Work in 500 sf increments: 1. Pour metallic base coat in vertical, horizontal, or diagonal ribbons across floor. Apply material with 25-30 WFT-mil blade and 3/8" non-shed nap roller. 2. Use leaf blower, solvent spray, or backroll color(s) to achieve desired pattern.	
RECOAT TIME	Fast- and slow-cure hardeners available. See Product Guide TDS.	8-24 hr	24 hr	
COVERAGE RATE	100 sf/gal	150 sf/gal	50 sf/gal	

SYSTEM ACTION GUIDELINE



METALLIC TOP COATS

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. If bubbling occurs, follow Sand & Sweep Procedure (see Step 4), then apply a second Metallic Prime Coat.

PIGMENTS/COLORANTS/ANTI-SLIP: After combining Metallic Pigment and Part A, cover mixture and allow it to set for at least 20 min but no more than 24 hrs. Light colors may require a 2nd coat. Continue to mix combined coatings throughout application to ensure no particles settle to the bottom of the mixing vessel.

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 ALIPHATIC MC	2 HYDROTHANE	3 POLYURETHANE HP	4 POLYURETHANE HS
PRODUCT	A (Aliphatic MC) +T (Optional Anti-Slip)	A (Hydrothane Part A, Gloss or Low Gloss) +T (Optional Anti-Slip) +B (Hydrothane Part B, Gloss or Low Gloss)	A (Polyurethane HP Part A) +T (Optional Anti-Slip) +B (Polyurethane HP Part B, Gloss or Satin)	A (Polyurethane HS Part A, EZ or FC) +B (Polyurethane HS Part B)
STANDARD KIT MIX RATIO	A:T = 1 gal+T* *8-16 oz (Bead), 1-2 lbs (AO), 2.75 lbs (Tex 50)	A:T:B = 1 gal+T*+1/2 gal *8-16 oz (Bead), 1-2 lbs (AO), 2.75 lbs (Tex 50)	Gloss: A:T:B = 32 oz+T*+1 gal Satin: A:T:B = 1/2 gal+T*+1 gal *8-16 oz (Bead), 1-2 lbs (AO), 2.75 lbs (Tex 50)	A:B = 1 gal+1/2 gal
MIXING INSTRUCTIONS	Mix A and T until texture is uniform.	Mix A and T until texture is uniform. Add B and mix for 1-2 minutes or until uniform.	Mix A and T until texture is uniform. Add B and mix for 1-2 minutes or until uniform.	Mix A and B for 1-2 minutes or until uniform.
METHOD/ TOOLS	Apply with 8-12 WFT-mil blade. Smooth application with 3/8" non-shed nap roller.	Apply with 5-7 WFT-mil blade. Smooth application with 3/8" non-shed nap roller.	Apply with 5-7 WFT-mil blade. Smooth application with 3/8" non-shed nap roller.	Apply with 8-12 WFT-mil blade. Smooth application with 3/8" non-shed nap roller.
RECOAT TIME	6-24 hr	12-18 hr	4-6 hr	Fast- and slow-cure hardeners available. See Product Guide TDS.
COVERAGE RATE	150 sf/gal	320 sf/gal	320 sf/gal	150 sf/gal