

POLY-CRETE® MDQ

The following information is to be used as a guideline for the installation of the Poly-Crete MDQ flooring system. Contact the Sherwin-Williams Technical Service Department for assistance prior to application.

APPLICATION INFORMATION — SURFACE PREP PROFILE CSP 3-5

VOC MIXED	APPLICATION STEP	MATERIAL	MIX RATIO	THEORETICAL COVERAGE PER COAT	PACKAGING
0 g/L	Primer (optional)	Poly-Crete TF	A, B & C unit	90 sq. ft./unit	0.80 gals./unit
0 g/L 0	Base Coat	Poly-Crete MD 5900F	A, B & C unit To Excess	32 sq. ft./unit 800 lbs./1000 sq. ft.	3.7 gals./unit 50 lbs.
0 g/L 0	Second Broadcast (optional)	Resufloor™ Glaze 5900F	2:1 To Excess	100 sq. ft./gal. 400 lbs./1000 sq. ft.	3, 15 or 150 gals. 50 lbs.
0 g/L	Grout	Resufloor Glaze	2:1	90-100	3, 15 or 150 gals.
0 g/L	Topcoat	Resutile™ AT	Pre-measured unit	550-575 sq. ft./unit	1.125 gals./unit

For additional topcoat options, contact your Sherwin-Williams Representative.

IMPORTANT!

Read these instructions carefully several days prior to starting your work. Seek answers to any questions you may have before you begin. Sherwin-Williams HPF maintains a technical staff that will be glad to answer your questions and give you advice pertaining to your particular installation. Large areas will require two or more mixers.

Poly-Crete MDQ is a 100% solids aromatic cementitious urethane system with a broadcast aggregate. This system is installed at 1/4". This should be determined by service and cleaning temperatures, severity of traffic, point impact and loadings. Poly-Crete MDQ uses colored or decorative quartz and clear seal coats to yield a textured surface.

STORAGE CONDITIONS

Poly-Crete MDQ must be stored dry. Exposure of the aggregate to moisture for an extended period will cause lumps. Do not allow resins to freeze. The shelf life is 6 months from the date of manufacture, and in the original unopened container.

JOINT GUIDELINES

Refer to the Joint Guidelines on our website for details.

MOISTURE CONCERNS

Normal limits for moisture vapor transmission for Poly-Crete floor systems are 20 lbs./1,000 sq. ft./24 hours using the calcium chloride test per ASTM F-1869 or 99% relative humidity using in-situ Relative Humidity Testing per ASTM F-2170. Please refer to the Floor Evaluation Guidelines for complete details.

SURFACE PREPARATION

Surface should be profiled, clean, dry, oil free and sound. Shot Blasting or grit blasting are the preferred preparation methods. Please refer to the master Surface Preparation Guide on our website for more information.

It is essential that the edges of the floor area adjoining the walls, drains adjacent to any doorways, machinery pedestals and either side of day work joints be keyed to produce a cross section 1/4" deep by 1/4" wide running 6" away from and parallel to the wall. Refer to architectural drawings for details. Never feather edge Poly-Crete MDQ, always terminate in keyway groove at doorways and exposed edges. Do not apply at temperatures below 60°F or above 85°F.

NOTE: For each application of material and before mixing, mark your batches to ensure you achieve your spread rate targets. This is best accomplished by dividing your target spread rate by the width of the area being coated (or your planned wet edge). Example: If your spread rate is 100 sq. ft. and your area is 20 feet wide, you would make a mark every 5 feet (100 divided by 20 = 5).

MIXING AREA

Select a convenient mix area and protect the surface from spillage by covering it with a layer of cardboard and/or a sheet of plastic. Be generous with the amount of space allocated for this function. The more comfortably your mixer works, the less likely you are to have a "mix error". **DO NOT MIX UNTIL READY FOR IMMEDIATE USE.**

PRIMER (OPTIONAL)

Priming or sealing of the substrate is typically not required; however, substrate must be primed with Poly-Crete TF Plus if the substrate is very porous (allow to cure a minimum of 6 hours @ 70°F) to prevent resins from being absorbed prematurely by substrate.

NOTE: Resuflor™ Aqua 3477 can be used as a primer in place of Poly-Crete TF. Please contact Technical Service for application instructions.

- A. Poly-Crete TF Plus is supplied in pre-measured units consisting of one pail of resin, one pail of hardener and one bag of aggregate (powder). Pour the Poly-Crete TF Plus resin into a 2-gallon pail; scrape bottom and sides with a mix stick to assure that all material is transferred to the mix bucket. Use the Poly-Crete pail to scrape the mix stick. Never scrape the mix stick on the side of the mix pail. Measure 1/4 oz. of Poly-Crete HF Accelerator and add it to the mix bucket. Pour the entire Poly-Crete TF Plus hardener into the center of the mix bucket. Using a 1/2" 750 RPM drill with a 4" dispersion blade, mix the resin and hardener for 30 seconds. Slowly add the Poly-Crete TF Plus aggregate to the resin and hardener and mix at 750 RPM for 1 minute. **PRODUCT MUST BE MIXED WITH A 4" DISPERSION BLADE AND A 1/2" VARIABLE SPEED 750 RPM DRILL. *DO NOT ADD HARDENER TO RESIN UNTIL BATCH IS READY FOR MIXING*. *FAILURE TO ADD ALL POLY-CRETE TF PLUS POWDER WILL RESULT IN IMPROPER CURE OF MATERIAL.***
- B. Pour the entire batch in a 4"-6" ribbon along the starting point.
- C. Using a 3" chip brush, cut in along edges, drains and doorways.
- D. Roll the material with an 18" 3/8" nap roller at 90 square feet/kit depending on substrate texture and porosity.
- E. Cross roll the material to remove any puddles and achieve a uniform thickness. Allow to cure for 4 hours @ 70°F before proceeding to the next application.

BASE COAT

Poly-Crete MDQ is applied by "Pin Rake" or "trowel method". Poly-Crete MDQ is typically applied at a thickness ranging from 1/8" to 3/16" (use TC aggregates if less than 3/16"), yielding a nominal system thickness of 1/4" including broadcast and grout/topcoats. Proper planning is essential for satisfactory appearance of the finished floor. Lay out installation in sections to allow full width to be finished in 12 minutes (@70°F) or less to assure absence of placement lines. Prepare the surface as outlined in the Surface Preparation Guide.

- A. Poly-Crete MDQ is supplied in pre-measured units consisting of one pail of resin, one container of hardener and one bag of aggregate (powder). Pour resin and hardener into a 5-gallon mixing pail; scrape bottom and sides to assure all material is transferred. Pre-blend for approximately 30 seconds. Gradually add aggregate until a homogenous mix is attained (Approximately 1 minute). Thorough blending is mandatory. Incomplete mixing will cause an inconsistent finish or possible blistering. Have multiple mixing buckets that are rotated to assure minimum time between mixes. Clean mixing blades and pails regularly to avoid mixing fresh material with older batches. Apply material immediately after mixing.
- B. Pour the entire batch onto the floor and spread with a 24" pin rake set at 1/4".
- C. Check pin rake every 1,000 sq. ft. for pin wear. Adjust or have a new rake ready to avoid interruption in the process.
- D. Trowel edges, drains and around equipment supports with an even pressure and a low angle trowel in a sweeping motion to complete troweling. This ensures that new batches of material are blended together with no transition lines for continuity of finish.
- E. Immediately roll with a spiked roller with 15/16" pins to eliminate lines and help release air.
- F. Spike rolling must be completed immediately after leveling of material to eliminate any residual roller marks in the finished surface (Within 12 minutes of mixing @ 70°F).
- G. Broadcast the aggregate UP into the air, dispersing evenly and vertically at an approximate rate of 1 lb. per sq. ft. into the wet surface. Apply at a rate of two mixes behind the wet edge, ensuring that the surface is completely covered. Broadcasting should be completed within 15 minutes of mixing each batch.

Do not spike roller areas that have been broadcast. The time window at which MDQ is broadcast is extremely critical:

- Too early and the surface may become uneven.
- Too late and the aggregate may not penetrate into the matrix surface.

- H. Allow to cure for a minimum of 8 hours (@ 70°F). Remove excess aggregate by brush.
- I. An optional second broadcast may be required if uneven broadcasting has caused a non-uniform finish. Refer to topcoat instructions for mixing and application. Upon completion of back roll, broadcast the aggregate into the wet resin at .4 lbs. per sq. ft. Allow to cure a minimum of 8 hours before sweeping off excess aggregate, and before applying topcoat.

CURE

Allow a minimum of 8 hours cure before light foot traffic at 75°F; a minimum of 24 hours is required at 50°F. Additional time must be allowed for heavier loads or lower temperatures. Contact the Sherwin-Williams HPF Technical Department for more information.

TOPCOAT INSTRUCTIONS

Appearance, aggregate size, texture and the type of traffic or chemical abuse the floor receives will determine what type of topcoat should be applied. Please consult with your Sherwin-Williams sales representative for optional coating finishes.

Apply a coat of Resuflor Glaze at 90-100 sq. ft. per gallon with a flat squeegee and back roll with a quality 18", 3/8" non-shed roller. For additional anti-slip properties, back roll Aluminum Oxide #54 to #36 into grout coat.

Apply Resutile AT per Product Data Sheet instructions. Remove all masking tape as you proceed, before it gets out of reach. Allow to cure.

IMPORTANT: Be sure to pour the hardener into the mixing bucket first when working with the epoxy and vice versa when working with the urethane. Always scrape the sides and bottom of mixing container to assure thorough blending. USE SIGNS AND BARRIERS to keep traffic out of the area. Do not allow any water on coated surface for 24-48 hours. Chemical spillage must be prevented for approximately 5 days.

NOTE: Use acetone or xylene for cleanup

IMPORTANT!

Before using Sherwin-Williams High Performance Flooring products, read and understand their accompanying Safety Data Sheet.

STANDARD TERMS AND CONDITIONS OF SALE, INCLUDING STANDARD WARRANTY APPLY - VISIT industrial.sherwin-williams.com/na/us/en/resin-flooring FOR THE LATEST VERSION.

CAUTION! As with all chemical products, individuals may have different reactions to exposure to specific products. This is dependent upon many factors, including the individual's personal characteristics, the size of the installation, the ventilation available, the intensity of the exposure or the length of the exposure. Individuals may experience discomfort during the installation process of one product, but not another.

In some cases this is experienced as a skin irritation and in others it is experienced as an inhalant irritation. Typically, it disappears once the exposure is eliminated. In some cases people can become "sensitized" to a product and experience the discomfort every time there is exposure without Personal Protective Equipment ("PPE").

To protect yourself from various exposures or discomfort during the mixing and application of our products, we recommend covering exposed skin including using gloves, long sleeves, safety glasses and a respirator such as the 3M 8577 P95 Universal Disposable Carbon Respirator or a cartridge respirator.

Use only as directed. KEEP OUT OF REACH OF CHILDREN.

Do not reseal moisture-contaminated hardener. This will result in carbon dioxide generation or possible violent rupture of container.

THE SHERWIN-WILLIAMS DIFFERENCE

Sherwin-Williams High Performance Flooring delivers world-class industry subject matter expertise, unparalleled technical and specification service, and unmatched regional commercial team support to our customers around the globe.

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