

ProCRYL FXTM Binder

ProREZ Coatings, LLC

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TECHNICAL DATA SHEET



DESCRIPTION

ProCRYL MMA FX Binder is available in two versions. For applications requiring a low temperature (LT) waterproofing membrane, pre-treatment of construction and expansion joints, and higher flexibility and elongation in colder settings, our elasticized polyurethane-methacrylate **ProCRYL FX-LT Binder** would be the best solution, both indoors and outdoors. Our standard **ProCRYL FX Binder** is also an elasticized methyl methacrylate resin designed for use as an intermediate or base coat (e.g. broadcast coat) offering stress relieving properties for horizontal slabs showing movement and/or vibration. Excellent for use as an intermediate layer in loading docks and ramps, equipment rooms, large animal rooms, activity rooms, automotive and tooling industry, freezers, coolers, bridge decks, pedestrian walkways, parking garages, ship decks, food industry, dairies, beverage industry, and numerous other applications.

BENEFITS

- ♦ Crack resistant and waterproofing flexibility
- ♦ Greater elongation and crack resistance in cold temperatures (**FX-LT**)
- ♦ **FX & FX-LT Binders** can be blended for cold storage and freezers
- ♦ Greater viscoelasticity for filling expansion joints (**FX-LT**)
- ♦ Broad temperature range for application – even below freezing
- ♦ Fast curing for rapid recoat and full return to Service
- ♦ Noise attenuation of mechanical vibrations
- ♦ May be applied in thickness of 1/16"-1/4"
- ♦ VOC compliant (100% reactive)

CONSIDERATIONS

- ♦ For proper performance, add filler powder and broadcast **ProCRYL MMA FX Binder** with clean, dry, finely graded silica quartz sand aggregate (30-40 or 20-25 mesh).
 - ♦ Concrete must be dry, free of dirt, waxes, curing agents and other foreign materials.
 - ♦ Do not store outside in direct sunlight, storage temperature must be < 80°F.
 - ♦ On or below grade installation must have an efficient vapor barrier under the slab (minimum 10-15 mil).
 - ♦ Moisture vapor transmission must be less than 3 lbs per ASTM-F-1869 and less than 80% RH per ASTM F-2170.
 - ♦ When used as a joint filler, it is recommended to lightly sprinkle sand onto the surface to eliminate slight material tack (**FX-LT**).
 - ♦ If air or substrate temperature is below 40°F, **ProCRYL LTC** (low temperature catalyst) should be used.
 - if <40°F, add 20 ml of **LTC**
 - if <0°F, add 75 ml of **LTC**
 - if <20°F, add 40 ml of **LTC**
 - if <-15°F, add 110 ml of **LTC**
- Note: Do not** install ProCRYL Resins below -20°F.

COMPOSITION

ProCRYL MMA FX Binder is a 100% reactive methyl methacrylate resin.

COLOR SELECTION

ProCRYL MMA FX Binder is supplied clear (slight haze). **ProREZ Universal Colorants** are available for selected colors. Colorant mix ratio is 1 quart pigment per 5 gallons resin. See **ProREZ MMA Color Card**.

SURFACE PREPARATION

Surface preparation is the most critical portion of any successful resinous flooring system. All substrates must be properly prepared as outlined in **ProREZ "Surface Preparation Guidelines"**. In addition, **ProREZ MMA Flooring Systems require a minimum surface profile of CSP 4-5**, as outlined in ICRI Guideline 310.2-1997, formerly named G-03732 (available from www.ICRI.org). Work must be performed by trained or experienced contractors or maintenance personnel.

PROCRYL MMA FX AND FX-LT BINDER RESINS Mix Ratios, Pot Life and Cure/Temperature

Temp. (°F) of Resin, Air & Floor Surface	Initiator by Volume (oz.) per Gallon of Resin	Pot Life (min.)	Cure Time (min.)
40-50°F	10 vol. oz	Approx. 25	Approx. 70
50-60°F	8 vol. oz	Approx. 25	Approx. 65
60-70°F	6 vol. oz	Approx. 20	Approx. 60
70-80°F	4 vol. oz	Approx. 20	Approx. 50
80-90°F	2-3 vol. oz*	Approx. 25	Approx. 45

*Do not use less than 2 oz **ProCRYL MMA Initiator** by volume unless confirmed with jobsite testing.

Consult with **ProREZ Technical Services** if performing mix ratio by weight instead of by volume, and installations below 40°F.

ProCryl MMA FX Binder

MIXING AND INSTALLATION

ProCryl MMA FX Binder is typically used in conjunction with fillers and fine aggregate and requires the addition of **ProCryl MMA Initiator** to start the hardening process. The amount of initiator must be adjusted to the respective surface temperature (see table page 1).

PHYSICAL PROPERTIES

Percent Reactive	100%, zero VOC
Viscosity, cps @ 75°F	FX-LT, 630-940; FX, 700-1,000
Weight per Gallon	FX-LT, 8.3 lbs; FX, 8.4 lbs
Working Life, 50°F-70°F	20-25 minutes, will vary w/temp. & amount of Initiator
Cure Rate	40-60 minutes
Recoat Time	55-75 minutes
Compressive Strength	2,500-3,000 psi (FX)
Tensile Strength	260 psi, FX-LT; 75-80 psi, FX
Elongation at Break	250%, FX-LT; 180%, FX

FORMULATION GUIDE

Typical Slurry Formula

MATERIAL	WEIGHT	VOLUME
ProCryl FX Binder	8.4 lbs	1.0 gallon
ProFill S/L Filler	12.5 lbs	1.0 gallon
Pigment Pack	N/A	6.4 vol. oz
Initiator	Follow chart	Follow chart

Add hardener to the clear resin and blend; add dry powders and mix thoroughly with jiffy mixer. Blend pigment and mix for 1-2 minutes until no lumps are present. Apply mix to the primed surface using a gauge rake or notched trowel. The above mixture will yield approximately 1.5-1.8 gallons of slurry. Coverage per batch is:

Yield* 1.5-1.8 gallons slurry

Coverage: 1/16"	36-44 ft ²
1/8"	18-22 ft ²
3/16"	12-15 ft ²
1/4"	9-11 ft ²

*Note: Yield of mixed slurry will vary depending on mix design used.

The fresh slurry coat must be broadcast to excess with a wearing course of aggregate when installed as a single slurry system. When installing two coats of **ProCryl MMA FX Binder**, the first slurry coat must be broadcast light to medium, the second coat is broadcast to excess. It may also be recommended to use polyester veil reinforcement between the two layers for certain applications, consult with **ProREZ** Technical Service. Aggregate rates will vary from 0.25-1.25 lbs/ft² depending on type and size of aggregate, mix design, and thickness of slurry. It is recommended to broadcast 20 mesh aggregate or larger. Do not use broadcast aggregate smaller than 20 mesh or the risk of random cure problems increases. Aggregate may be natural or colored quartz, sand, aluminum oxide, emery, etc.

ProCryl MMA FX Binder must be top coated or sealed with **ProCryl UVR**. The top coat can be either pigmented or clear.

CLEAN UP

Clean tools and equipment with **ProCryl Cleaner**. Consult Safety Data Sheet for safety and health precautions.

STORAGE

Store in a cool and dry place, below 80°F, out of direct sunlight. Do not store near open flame or food. Shelf life is 6 months in the original unopened containers. After extended storage: Additives and fillers can separate with storage, materials should be inspected for any visible signs of settlement, polymerization, or paraffin coagulation (clumps, strands). Thoroughly mix pails or drums (use a drum mixer, do not rely on rolling drum on floor) and pour into new containers to inspect resin before use.

HELPFUL HINTS

Adequate cross ventilation should be provided. Good ventilation during the processing ensures a good cross linking and hardening. Read, understand and follow Safety Data Sheets and Applications Instructions prior to use. Use only as directed. If substrate and/or material temperature is above 90°F, DO NOT apply material.

TECHNICAL SERVICE

ProREZ is available to provide services and consultations on material selection, specification, troubleshooting, and other information on the proper repair and protection of concrete surfaces. A **ProREZ** Technical Representative is available to assist you. Telephone 877.511.3456 or www.prorezcoatings.com.

Warranties: Seller warrants that its goods, as described on the face hereof, are free from any defects in material or workmanship. Seller makes no other warranty, express or implied, and all implied warranties of merchantability and fitness for a particular purpose are hereby disclaimed. Seller shall not be liable for prospective profits or special indirect or consequential damages. Seller's sole liability and buyer's exclusive remedy for breach of any warranty as expressly limited, at seller's option, to replacement at the original F.O.B. point or refund of purchase price. Seller shall not be responsible for any claim resulting from failure to utilize product in the manner in which it was intended and in accordance with instruction provided for use of product. Any claim for breach of warranty shall be deemed waived unless buyer shall give seller written notice of such claim within sixty (60) days after delivery and shall allow seller reasonable opportunity to investigate claim and inspect product.