

Macrylex F32

Reactive methyl methacrylate resin



DESCRIPTION

Macrylex F32 is a higher viscosity, 100% reactive, flexible methyl methacrylate resin used as a crack isolation or waterproofing membrane under various Macrylex Systems. Macrylex F32 resists cracking caused by horizontal substrate movement, providing a crack resistant, resilient surface. It offers stress relieving properties for floor slabs showing movement and/or vibration. It is excellent for use as an intermediate layer in loading docks and ramps, equipment rooms, large animal rooms, activity rooms, automotive repair, food industry, dairies, beverage industry, and numerous other applications.

ADVANTAGES

- Crack resistant, flexible and waterproofing properties
- Elongation of 300%
- Reduces noise created by mechanical vibration
- May be applied in thickness of 1/16" to 1/4"
- VOC Compliant (100% solids), meets USGBC LEED requirements

SUBSTRATE REQUIREMENTS

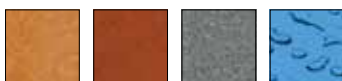
- For proper performance add filler powder and broadcast 20 mesh silica sand
- Concrete substrate must be free of dirt, waxes, curing agents and other foreign materials
- Do not store outside in direct sunlight, storage temperature must be <80°F
- On or below grade installation must have an efficient vapor barrier under the slab (10 to 15 mil)
- Moisture vapor transmission must be less than 3lb per ASTM F 1889 and less than 80% RH per ASTM F 2170 unless Duraamen's moisture mitigation system is used.

COMPOSITION

Macrylex F32 is a 100% reactive methyl methacrylate resin.

COLOR SELECTION

Macrylex F32 is supplied clear (slight haze). Color packs are available for selected colors. Color pack mix ratio is 1 quart pigment



duraamen engineered products, inc.

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SURFACE PREPARATION

Surface Preparation is the most critical portion of any successful high performance flooring system. All substrates must be properly prepared as Outlines in Duraamen's Technical Bulletin #1. In addition, all **Macrylex Flooring Systems require a minimum surface profile of 4 or 5 (CSP 4 to 5)** as outlined in ICRI Guideline 310.2-1997 formerly G-03732 (available from www.ICRI.org). Work must be performed by trained or experienced contractors or maintenance personnel. Shot blast the substrate to remove laitance and expose surface cracks. Clean out cracks with oil-free compressed air.

MIXING & INSTALLATION

Macrylex F32 is typically used in conjunction with fillers and fine aggregates and requires the addition of Macrylex hardener to start the hardening process. The amount of hardener must be adjusted to the respective surface temperature as shown in the table below. At temperatures below 40 F, Macrylex CTA must be used in addition to the amount of hardener.

Macrylex F32 Resin Mix Ratios, Pot Life and Hardening Temperature			
Temp (F) of resin, air & surface	Hardener by volume (oz) per gallon of resin	Pot Life (min)	Hardening Time (min)
+30°F	10 oz	25	75
+40°F	9-10oz	25	70
+50°F	8-9oz	25	65
+60°F	6-7oz	20	60
+70°F	5-6oz	20	50
+80°F-90°F	5 oz	15	45

Do not use less than 5oz of Macrylex Hardener by volume.

Macrylex CTA: At temperatures below 40°F, Macrylex CTA, Cold Temperature Accelerator must be used in addition to the amount of hardener used at the 40°F or 30°F level. As a rule of thumb, add 1/2oz by volume per gallon of resin at 39°F to 32°F, up to 2.0oz by volume per gallon at 20°F; increasing the quantity gradually in a consistent linear progression as the temperature decreases.

IMPORTANT NOTE: Macrylex CTA MUST be added to the Resin and thoroughly blended BEFORE adding Macrylex Hardener, or hazardous decomposition may occur (violent foaming). Macrylex CTA will cause yellowing of the resin. Therefore, it is advised to use pigmented Macrylex resins to reduce the appearance of yellowing.

TYPICAL SLURRY FORMULA

Material	Weight	Volume
Macrylex F32	8.4lb	1.0gal
Self-leveling Filler	15-22lb	1-1.5gal
Silica Sand 30-50 mesh (optional)	11.0lb	110 vol. oz (0.85 gal)
Pigment Pack	N/A	6.4 vol oz
Macrylex Hardener	Follow chart	Follow chart

Add the hardener to the clear resin and blend; add dry powders and mix thoroughly with jiffy mixer. Blend the 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 for batch is –

Yield 1.5-1.8 gal slurry

1/16"	36-44ft2
1/8"	18-22ft2
3/16"	12-15ft2
1/4"	9-11ft2

Note: Yield of mixed slurry will vary depending upon the 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 Macrylex F32, 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 two layers for certain applications. Aggregate rates will vary from 0.25-1.25lb/ft2 depending on type and size of the aggregates, 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.

Macrylex F32 must be top coated or sealed with Macrylex Binders (use for body coat only) or Macrylex Sealers.

PHYSICAL PROPERTIES

Percent Reactive	100%, zero VOC
Working life, 50°F - 70°F	8-10 minutes, will vary with temp. & amount of Hardener
Recoat Time	45 – 60 minutes
Viscosity	250-270cps
Weight per gallon	8.3lb
Bond Strength	300-400 psi (100% concrete failure)

CLEAN UP

Clean tools and equipment with lacquer thinner or MEK. Consult MSDS for safety and health precautions.

AVAILABILITY

Duraamen Products are available throughout United States and also Worldwide. Please contact us info@duraamen.com or visit www.duraamen.com for latest information

STORAGE

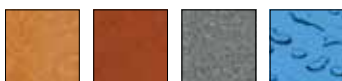
Store in a cold and dry place, below 80°F, out of direct sunlight. Do not store near open flame or food. Shelf life is 6 months in the original unopened containers. After extended storage additives and fillers may separate. It should be inspected for any visible signs of settlement, polymerization, or paraffin coagulation (clumps, strands). Thoroughly mix pails or drums (use a drum mixer, do not rely on rolling the drum on the 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 SDS instructions prior to use. Use only as directed. If the substrate and/or material temperatures above 90°F, DO NOT APPLY the material, DO NOT apply material unless prepared for very short working time and possible roller marks, etc.

WARRANTY

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