



KEY 9430 FLEXIBLE MMA

DESCRIPTION

Key 9430 MMA is a high viscosity, 100% reactive, flexible methyl methacrylate resin used to fill joints and as a crack isolation membrane in freezers under **Key MMA Systems**. **Key 9430** resists cracking caused by horizontal substrate movement providing a crack resistant, resilient surface. **Key 9430** offers stress relieving properties for floor slabs showing movement and/or vibration. The high elongation of **Key 9430** makes it suitable for filling both exposed expansion joints and contraction joints.

KEY ADVANTAGES

- Flexible enough for expansion joint filler.
- Crack resistant flexibility in cold temperatures.
- Reduces noise created by mechanical vibrations.
- May be applied as basecoat membrane in thickness of 1/16"-1/4".

KEY CONSIDERATIONS

- When used as basecoat membrane, broadcast **Key 9430** with 16-30 mesh silica sand.
- 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.

COMPOSITION

Key 9430 MMA is a 100% reactive methyl methacrylate resin.

COLOR SELECTION

Key 9430 is supplied clear (slight haze). Color packs are available for selected colors. Color pack mix ratio is 1 quart pigment per 5 gallons resin. See **Key Resin 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 **Key Resin Company's Technical Bulletin #1**. Work must be performed by trained or experienced contractors or maintenance personnel.

MIXING AND INSTALLATION

Key 9430 should be mixed with 10% to 20% (by volume) **Key Self-Leveling Filler** powder when used as a joint filler, and requires the addition of **Key MMA 9000 Hardener** to start the hardening process. If used "neat" without adding filler powder, the cured surface will be slightly tacky, which may be acceptable for narrow joints filled concave. When used as a membrane basecoat, **Key 9430** must be mixed with 20% (by volume) filler powder and fine aggregate and requires the addition of **Key MMA** hardener to start the hardening process. The amount of hardener must be adjusted to the respective surface temperature (see table below). At temperatures below 40°F, **Key MMA Accelerator 9101** must be used in addition to the amount of hardener used at the 40°F level (about ½ oz by vol./gal. @ 32°F up to 2.0 oz by vol./gal. @ -20°F).

Add hardener to the clear resin and blend; add pigment pack and filler/sand (if used) and mix thoroughly with jiffy mixer. Blend for 1-2 minutes until pigment is thoroughly mixed and no lumps from filler/sand are present. For joint filling, transfer mixed resin to a pourable container or caulk gun. One gallon of **Key 9430** will yield 231 cubic inches, or fill a joint with dimensions of ½ inch x ½ inch x 77 lineal feet. Closed cell backer rod should be used to support bottom of **Key 9430** joint filler.

For use as membrane basecoat, apply mix to the primed surface using a gauge rake or notched trowel. The fresh slurry coat must be broadcast to excess with aggregate. Rates will vary from 0.25-1.25 lbs./sq. ft. depending on type and size of aggregate and thickness of slurry. It is recommended to broadcast 16-30 mesh aggregate. Do not use broadcast aggregate smaller than 30 mesh. Aggregate may be natural or colored quartz, sand, aluminum oxide, emery, etc.

Key 9430 when used as a membrane basecoat must be top coated as outlined for **Key MMA Elastomeric Freezer Flooring System 2**. Consult with Key Resin for details

Pot Life and Hardening Time/Temperature

Temp. (°F) of Resin, Air & Floor Surface	Hardener by Volume (oz.) Based on Gallon of 9430 Resin	Pot Life (min.)	Hardening Time* (min.)
+40	10-12	Approx. 25	Approx. 70
+50	9-10	Approx. 25	Approx. 65
+60	6-7	Approx. 20	Approx. 50
+70	5-6	Approx. 20	Approx. 45

Below 40°F **Key MMA Accelerator 9101** must be used in addition to the amount of hardener used at the 40°F level (about ½ oz by vol./gal. @ 32°F up to 2.0 oz by vol./gal. @ -20°F).

*Hardening times shown apply to spreading **Key 9430** as a membrane in a thin layer. Hardening time will be reduced when filling a joint and will vary depending on the width and depth of the joint.

PHYSICAL PROPERTIES

Percent Solids	100%
Working Life, 50° - 70°F	20-25 min.
Recoat Time	45-75 min.
Viscosity, cps	1,200-1,500 cps
Weight per Gallon	8.3 lbs
Tensile Strength	250 psi
Elongation at Break	1100%

CLEAN-UP

Clean tools and equipment with lacquer thinner or MEK. Consult Material Safety Data Sheet for safety and health precautions.

AVAILABILITY

Key Resins are available throughout the United States, Canada, Mexico and a number of other countries. Contact the **Key Representative** in your area. CALL (888) 943-4532 or visit www.keyresin.com.

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.

HELPFUL HINTS

Additives and fillers can separate with storage. Stir thoroughly before using or removing from drum.

Adequate cross ventilation should be provided. Good ventilation during the processing ensures a good cross linking and hardening. Read, understand and follow Material Safety Data Sheets and Application Instructions prior to use.

Use only as directed. If substrate and/or material temperature is above 90°F, DO NOT apply material.

TECHNICAL SERVICE

Key Resin Company and **KRC Associates, Inc.** provide services and consultations on material selection, specification, troubleshooting, and other information on the proper repair and protection of concrete surfaces. **KEY REPRESENTATIVES** are available to assist you. CALL (888) 943-4532 or visit www.keyresin.com.

WARRANTY

Information regarding Key Resin brand MMA resins and systems is based upon extensive research and experience in the field of applied engineering by the manufacturer **Plasti-Chemie GMBH International**. By making such information available, Key Resin does not thereby assume any liability beyond express terms of our standard limited material warranty. Key Resin does not warrant the accuracy or completeness of any such information, whether conveyed orally or in writing, but to the best of our knowledge believe it to be accurate. We reserve the right at any time and without notice to update or improve our products and process and our information concerning the same.

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