



KEY 9522 MMA SEALER

DESCRIPTION

KEY 9522 MMA is a 100% reactive, low viscosity methyl methacrylate resin developed as a sealer/topcoat over various systems utilizing **KEY 9418**, **KEY 9510**, **KEY 9332**, and over **KEY 9112** as a high-build coating system. **KEY 9522** is a chemical resistant coating that cures to a hard, scratch and wear resistant surface and is specifically designed for service in areas subjected to high traffic such as manufacturing areas, aisles, lobbies, service areas, and numerous other applications.

KEY ADVANTAGES

- Low Viscosity for Good Flow and Leveling
- Rapid Cure (60 min.)
- UV Resistance
- Abrasion and Wear Resistance
- VOC Compliant (100% Solids), Meets USGBC LEED Requirements
- Chemical Resistance
- Excellent Hot Tire Stain Resistance
- Use Over Wide Temperature Range – Even Below Freezing

KEY CONSIDERATIONS

- 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.
- Maintain coating thickness at 10-20 mils to minimize yellowness and possible micro cracking.
- 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 pounds per ASTM-F-1869 and less than 80% RH per ASTM F-2170 unless Key Resin moisture mitigation system is used.
- Do not use as topcoat directly over **KEY 9332 MMA** flexible resin basecoat.
- Do not use for exterior applications in seasonal cold weather climates due to increased hardness.

COMPOSITION

KEY 9522 MMA is a 100% reactive methyl methacrylate resin.

COLOR SELECTION

KEY 9522 MMA is supplied clear, slightly bluish tint. Color packs are available for selected colors. Color pack mix ratio is 1 quart pigment per 5 gallons resin for most colors. Certain light colors may require 2 quarts per 5 gallons. 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**. In addition, **All Key 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.

MIXING & INSTALLATION

KEY 9522 MMA requires the addition of **KEY 9000 MMA HARDENER** to start the hardening process. The amount of hardener must be adjusted to the respective surface temperature (see table below). In order to achieve the best curing it is necessary to apply **KEY 9522 MMA** with a short nap roller. Coating thickness should be a minimum of 10 mils and maximum of 20 mils (80-160 sq. ft./gal.) over a smooth basecoat, or maximum of 25-30 mils when used as a grout coat over a textured broadcast system, depending on the profile of the base material. 100 ft²/gallon is average over a smooth basecoat. If the coating exceeds 20 mils over a smooth basecoat, the top coat may remain visibly blue or yellow and surface micro cracks are possible. It is best to spread material with a notched trowel or squeegee to the desired thickness, roll in one direction, then roll in a 90° pattern. This will reduce the occurrence of roller marks in the top coat. **IMPORTANT:** Backrolling should be performed immediately after spreading, and should be completed before reaching the upper limit of the pot life time, as the resin quickly transitions from fluid to sticky within a few minutes. Very light surface rolling may still be performed towards the end of the working time, but do not allow the full weight of the roller to fully imbed in the resin and contact the bond line or problems may result (resin may become “stringy” and pull away from the previous layer). Also, be aware that addition of the pigment to the clear resin may slightly speed up the cure process. Use a clean roller cover with each successive batch.

KEY 9522 MMA requires the addition of **KEY 9000 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, consult with Key Resin for recommendations. At temperatures below 40°F, **KEY 9101 MMA COLD TEMPERATURE ACCELERATOR** must be used in addition to the amount of hardener used at the 40°F or 30°F level.

**KEY 9522 MMA Resin
Mix Ratios, Pot Life and Hardening/Temperature**

Temp. (°F) of Resin, Air & Floor Surface	Hardener by Volume (oz.) Per Gallon of 9522 Resin	Pot Life (min.)	Hardening Time (min.)
+30°F	4 vol. oz.	Approx. 40 min.	Approx. 60 min.
+40°F	3-4 vol. oz.	Approx. 30 min.	Approx. 50 min.
+50°F	3-4 vol. oz.	Approx. 25 min.	Approx. 40 min.
+60°F	2*-3 vol. oz.	Approx. 20 min.	Approx. 20 min.
+70°F	2*-3 vol. oz.	Approx. 10-15 min.	Approx. 15 min.
+80°F - 90°F	2*-3 vol. oz.	Approx. 8-10 min.	Approx. 15 min.

*Do not use less than 2 oz. Key 9000 MMA Hardener by volume unless confirmed with jobsite testing. Consult with Key Resin Technical Services if performing mix ratio by weight instead of by volume.

Important Note: Yellowing of the resin will occur with excessive thickness or higher amounts of hardener, beginning in the range of 4 vol. oz. It is advised to use lower amounts and allow for extra cure time, particularly with clear resin or very light colors.

KEY 9101 MMA COLD TEMPERATURE ACCELERATOR: At temperatures below 40°F, Key 9101 MMA 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 about ½ oz by volume per gallon of resin @ 39° to 32°F, up to 2.0 oz by volume per gallon @ -20°F, increasing the quantity gradually in a consistent linear progression as the temperature decreases.

VERY IMPORTANT: KEY 9101 MMA COLD TEMPERATURE ACCELERATOR MUST be added to the MMA resin and thoroughly blended BEFORE adding the **KEY 9000 MMA HARDENER**, or hazardous decomposition may occur (i.e., violent foaming). **KEY 9101 MMA COLD TEMPERATURE ACCELERATOR** will cause yellowing, it is advised to use pigmented MMA resin versus clear to reduce the appearance of yellowing, darker colors will be less affected than lighter colors.

Key Resin recommends waiting 1-2 hours between multiple topcoats. Coating work should be continued only after the complete hardening of the previous layer. Tap random areas with a hard edge tool to confirm resin is hard and not “surface dry”.

PHYSICAL PROPERTIES

Percent Reactive	100%, zero VOC
Working Life, 50° - 70°F	10 - 25 minutes, will vary w/temp. & amount of Hardener
Recoat Time	60-120 minutes
Viscosity @ 75°F	185-195 cps
Weight per Gallon	8.35 lbs.
Heat Resistance, dry heat	216°F
Shore D Hardness	75-80

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. Telephone (888)943-4532 or visit www.keyresin.com.

MAINTENANCE

KEY 9522 MMA is considered to be a low maintenance flooring solution. Certain textures and environments, however, require specific cleaning with bristled brushes. Due to the thermoplastic character of MMA resins, black marks can occur from fork lifts and tires skidding.

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 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 Resin Sales/Technical Representatives** are available to assist you. Telephone (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. By Key Resin making this information available does not relieve the purchaser or user from his obligation to verify the suitability of our products and processes for the intended use or application. The purchaser and user likewise have the responsibility to ensure that the purchase, use or application does not infringe upon patent rights or other rights of third parties. **Key Resin Company ("Key")** warrants for a period of one (1) year that its products will be free of manufacturing defects and will be in conformity with published specifications when handled, stored, mixed, and applied in accordance with recommendations of **Key**. If any product fails to meet this warranty, the liability of **Key** will be limited to replacement of any non-conforming material if notice of such non-conformity is given to **Key** within one (1) year of delivery of materials. **Key** may in its discretion refund the price received by **Key** in lieu of replacing the material. No customer, distributor, or representative of **Key** is authorized to change or modify the published specifications of this warranty in any way. No one is authorized to make oral warranties on behalf of **Key**. In order to obtain replacement or refund the customer must provide written notice containing full details of the non-conformity. **Key** reserves the right to inspect the non-conforming material prior to replacement. EXCEPT FOR THE EXPRESSED WARRANTY STATED ABOVE, THERE ARE NO OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING WITHOUT LIMITATION, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR PURPOSE. **KEY'S OBLIGATION SHALL NOT EXTEND BEYOND THE OBLIGATIONS EXPRESSLY UNDERTAKEN ABOVE AND KEY SHALL HAVE NO LIABILITY OR RESPONSIBILITY TO THE PURCHASER OR ANY THIRD PARTY FOR ANY LOSS, COST, EXPENSE, DAMAGE OR LIABILITY, WHETHER DIRECT OR INDIRECT, OR FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.**