



KEY 9522 MMA HIGH-BUILD COATING

DESCRIPTION

KEY 9522 MMA HIGH-BUILD COATING SYSTEM is a 30-50 mil thick, 100% reactive, low viscosity methyl methacrylate resin floor coating system. **KEY 9522 MMA HIGH-BUILD COATING SYSTEM** 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, vehicle service areas, and numerous other applications.

KEY ADVANTAGES

- Low Viscosity for Good Flow and Leveling
- UV Resistant
- Good Scratch and Wear Resistance
- Higher Temperature Resistance
- Good Chemical Resistance
- Hot Tire Stain Resistant

KEY CONSIDERATIONS

- Concrete must be dry, free of dirt, waxes, curing agents and other foreign materials.
- 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-1869-11 and less than 80% RH per ASTM F-2170-11.
- Must use **KEY 9112 MMA PRIMER**.

COMPOSITION

KEY 9522 MMA HIGH-BUILD COATING SYSTEM is comprised of 100% reactive methyl methacrylate resins.

COLOR SELECTION

KEY 9522 MMA HIGH-BUILD COATING SYSTEM is supplied clear (slightly blue tint). Color packs are available for selected colors. Color pack mix ratio is 1-2 quarts 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 9112 MMA PRIMER and **KEY 9522 MMA SEALER** require 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 tables below). In order to achieve the best curing it is necessary to apply the MMA resins with a short nap roller. Application thickness should be a minimum of 15 mils and maximum of 20 mils (80-100 sq. ft./gal.) per coat, depending on the concrete surface profile and desired total system thickness. If **KEY 9522 MMA SEALER** exceeds 20 mils, 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, and roll in one direction, then roll in a 90° pattern. This will reduce the occurrence of roller marks in the top coat.

KEY 9112 MMA PRIMER 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, **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 9112 MMA Primer Resin
Mix Ratios, Pot Life and Hardening/Temperature**

Temp. (°F) of Resin, Air & Floor Surface	Hardener by Volume (oz.) Per Gallon of 9112 Resin	Pot Life (min.)	Hardening Time (min.)
+30°F	9-10 vol. oz.	Approx. 10-12	Approx. 30
+40°F	7-9 vol. oz.	Approx. 10-12	Approx. 30
+50°F	5-7 vol. oz.	Approx. 8-10	Approx. 25
+60°F	4-5 vol. oz.	Approx. 8-10	Approx. 25
+70°F	4 vol. oz.	Approx. 8-10	Approx. 20
+80°F - 90°F	4* vol. oz.	Approx. 6-8	Approx. 20

*Do not use less than 4 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.

KEY 9522 MMA SEALER 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, **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 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".

KEY 9522 SEALER PHYSICAL PROPERTIES

Percent Reactive	100%
Working Life, 50° - 70°F	15-30 min.
9522 Recoat Time	Approx. 1-2 hrs.
Viscosity, cps	185-195
Weight per Gallon	8.35 lbs.
Heat Resistance	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.

COVERAGE

80-100 square feet per gallon, average.

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,

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