

KEY #9112 MMA PRIMER

Product Information Sheet



DESCRIPTION

KEY #9112 MMA PRIMER is a 100% reactive methyl methacrylate primer for all **Key MMA flooring systems**. **KEY #9112** also provides excellent filling and sealing as a scratch coat filler (with filler powder or fine sand added) to level uneven floor surfaces. **KEY #9112** is a reactive methacrylate resin, which hardens rapidly with the addition of **KEY #9000 MMA HARDENER**, even at low temperatures.

KEY ADVANTAGES

- Fast cure for rapid recoat and return to service
- Good wetting properties for excellent bond to concrete
- Meets USGBC LEED criteria for low VOC
- Full cure in less than 60 minutes
- Use over wide temperature range—even below freezing

KEY CONSIDERATIONS

- Substrate must be dry and 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 lbs per ASTM-F-1869 and less than 80% RH per ASTM F-2170. For higher moisture levels, **consult with KEY RESIN** for recommendations
- Application **MUST** yield a consistent resin-rich layer, re-prime if resin absorbs into substrate
- Do **NOT** perform a “full broadcast to excess” of aggregate into **KEY #9112 MMA**, lightly broadcast only. Do **NOT** use as binder resin for troweled mortars and thick slurry toppings.
- MMA odor must be contained and/or ventilated with negative air flow as necessary
- Small enclosed spaces require proper negative air flow ventilation to ensure proper curing

COLOR SELECTION

KEY #9112 is supplied Clear. Color packs are available, refer to **Key Resin MMA Color Card**. Color pack mix ratio is 1 quart pigment per 5 gallons resin.

COMPOSITION

100% reactive methyl methacrylate resin.

COVERAGE

KEY #9112 is applied at 100 ft²/gallon (16 mils) minimum thickness. Two coats may be necessary on very porous substrates. **IMPORTANT**—must achieve a consistent resin-rich layer over entire substrate for proper curing.

APPLICATION

SURFACE PREPARATION

Surface Preparation is the most critical portion of any successful resinous flooring system application. All substrates must be properly prepared as outlined in **Key Resin Technical Bulletin #1**. Work must be performed by trained or experienced contractors or maintenance personnel. **Key Resin Technical Service** is available to answer any questions. All **Key MMA Flooring Systems** require a minimum surface profile of CSP 4-5.

MIXING/INSTALLATION

(Continued on next page)

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. For complete installation instructions, contact **Key Resin Technical Service**.

KEY #9112 MMA PRIMER RESIN

Mix Ratios, Working Life, Hardening/Temperature

Temp of Resin, Air and Floor	Hardener by Volume oz/gal	Working Life (minutes)	Hardening Time (minutes)
+30°F	10 vol. oz. +0.5 v.o. #9101	~8	~30
+40°F	10 vol. oz.	~8	~30
+50°F	8 vol. oz.	~8	~30
+60°F	6 vol. oz.	~8	~30
+70°F	4 vol. oz.	~8	~30
+80°F - 90°F	2-3* vol. oz.	~6	~30

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

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ADDITIVES / SPECIAL CONDITIONS

KEY #9111/#9111F MMA DAMP TOLERANT PRIMER: Recommended for damp substrates as a substitute for **KEY #9112**. Limited availability, call **Key Resin** for details.

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 at 39° to 32°F, up to 2.0 oz by volume per gallon at -20°F, increasing the quantity gradually in a consistent linear progression as the temperature decreases. **Very Important: 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 #9110 MMA PRIMER ADHESIVE ADDITIVE: Recommended for coating glazed tile or stainless steel when adequate surface preparation can not be performed. Add 0.25% by volume (or 0.30 ounces by volume per gallon) to **KEY #9112 MMA PRIMER** during mixing. Note: **KEY #9110 MMA PRIMER ADHESIVE ADDITIVE** will inhibit the cure time by 10-20 minutes or more depending on temperature and amount of **KEY #9000 MMA HARDENER** used. It is optional to increase amount of **KEY #9000 MMA HARDENER** to compensate if needed. As a rule of thumb, at 70°F increase amount approximately 25%, at 40°F and colder increase approximately 100%. Note: For Stainless Steel consult with Key Resin on the use of **KEY 9529 MMA** as primer resin.

INSTALLATION

KEY #9112 MMA PRIMER is spread evenly on the surface (no puddles) with notched trowels, and/or squeegees and back rolled with short-medium nap mohair rollers at no less than 100 ft²/gallon on very absorbent surfaces. **Important:** Two coats may be necessary on very porous substrates to get a consistent, resin-rich surface, this is necessary to ensure proper cure and bonding with the next layer. It is recommended to lightly broadcast 20-30 mesh sand or colored quartz (approximately 1-2 lbs/100 ft²) into the wet primer. This will help in the application of the subsequent coating or troweled mortar. Apply next application of resin only after the primer is completely hardened.

HELPFUL HINTS

Good ventilation during the application process ensures adequate cross linking and hardening. Read, understand and follow Safety Data Sheets (SDS) and application instructions prior to use. Use only as directed. If substrate and/or material temperature is above 90°F, DO NOT apply material unless prepared for very short working time and possible roller marks, etc.

TECHNICAL DATA

Percent Reactive	100%
Volatile Organic Content (VOC) (EPA Method 24)	48 g/L, compliant to low VOC Rule 1113 in all 50 states
Weight/gal	8.3 lbs/gal
Viscosity @ 75°F	250-270 cps

PHYSICAL PROPERTIES

Adhesion to Concrete	ASTM D7234	300-400+ psi (Concrete Failure, varies by concrete strength)
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CURE/DRY TIME

Working Life	6-8 minutes, will vary with temp. & amount of Hardener
Recoat	30 minutes, will vary with temp. & amount of Hardener
Full Cure & Max. Resistance	1 hour, will vary with temp. & amount of Hardener

STORAGE

Store **KEY #9112** in a cool and dry place, below 80°F, out of direct sunlight. Do not store near open flame or food. Shelf life is 12 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 (i.e, 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.

TECHNICAL SERVICE

Key Resin Company provides services and consultations on material selection, specification, troubleshooting, and other information on the proper repair and protection of concrete surfaces. **Key Resin Representatives** are available to assist you. Telephone 888.943.4532 or visit www.keyresin.com.

MAINTENANCE

KEY #9112 is typically used as a primer underneath other **Key MMA** materials. Refer to the appropriate system technical data sheet for maintenance instructions, or **Key Resin Technical Bulletin #3** and **#3-A**.

AVAILABILITY

Key Resin materials are available throughout the United States, Canada, and a number of other countries. Contact the **Key Resin Representative** in your area for details.

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WARRANTY

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 (1) one 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.

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