

KEY #9540-HKP MMA COVE PASTE

Product Information Sheet

DESCRIPTION

KEY #9540-HKP MMA COVE PASTE is a 100% reactive methyl methacrylate paste grade resin for use as a binder for troweled cove base mortars and trench linings. The cove base mortar system based on **KEY #9540-HKP MMA** can be used with all **Key MMA Flooring Systems**.

KEY ADVANTAGES

- Fast cure for rapid recoat and return to service
- Contains thixotropic fillers for vertical applications
- Meets USGBC LEED criteria for low VOC
- Use over wide temperature range—even below freezing

KEY CONSIDERATIONS

- Concrete must be dry, free of dirt, waxes, curing agents and other foreign materials
- **KEY #9540-HKP MMA** must be mixed with color quartz or blended aggregate and sealed with appropriate MMA sealer
- **KEY #9540-HKP MMA** when mixed as a mortar must be applied at minimum thickness of 65 mils (1/16")—do not feather or cure problems may result
- 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 F1869 and less than 80% RH per ASTM F2170 unless **Key Resin** moisture mitigation system is used
- 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
- Alternative to **KEY #9540-HKP MMA**: **KEY #9418** or **KEY #9510** mixed with **Silothix**

COLOR SELECTION

KEY #9540-HKP is supplied Clear (slight haze). 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 and fillers.

COVERAGE

Yield of mixed mortar will vary depending on mix design used. Chart shows yield for ±2.0 gallons mortar (0.27 ft³).

| | | |
|-----------|-------|--------------------|
| Coverage: | 1/8" | 25 ft ² |
| | 3/16" | 16 ft ² |

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.

INSTALLATION

(Continued on next page)

KEY #9540-HKP requires the addition of **KEY #9000 MMA HARDENER** to initiate the hardening process. The amount of hardener must be adjusted based on 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.

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Mix Ratios, Working Life, Hardening/Temperature

| Temp of Resin, Air & Floor | Hardener by Volume oz/gal | Working Life (minutes) | Hardening Time (minutes) |
|----------------------------|--------------------------------|------------------------|--------------------------|
| +30°F | 10 vol. oz. +0.5 v.o. #9101 | ~20 | ~60 |
| +40°F | 9-10 vol. oz. | ~20 | ~60 |
| +50°F | 8 vol. oz. | ~15 | ~50 |
| +60°F | 6-7 vol. oz. | ~15 | ~50 |
| +70°F | 5 vol. oz. | ~15 | ~40 |
| +80°F - 90°F | 3-4* vol. oz. | ~10-12 | ~30 |

Note: Decrease the hardener content as needed to increase working time, minimum 3 ounce per gallon is needed for proper curing at >60°F. Important: At 70-80°F, 3 oz. by volume per gallon is typical. For faster cure time and/or colder temperatures, increase **KEY #9000** according to instructions, however, resin ambering will develop at 4 oz. and greater which will be noticeable with light colors or clear systems (quartz, chip systems). Cured resin will have some resilience.

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ADDITIVES / SPECIAL CONDITIONS

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. 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”.

MIXING / INSTALLATION

KEY #9540-HKP must be premixed, then add hardener powder and mix thoroughly for 1 minute, scraping sides and bottom of mix pail. While blending add aggregates and pigment (if used) and mix for 3 additional minutes until no lumps are present. Apply to the fully cured primed surface using a cove trowel or flat trowel. **KEY #9540-HKP MMA Cove Base Mortar** must be sealed/topcoated with the same **Key MMA Sealer** used for the floor system. If used for trench lining, consult with **Key Resin** for recommendations.

TYPICAL MORTAR FORMULA

Yield: ±2.0 gallons mortar (0.27 ft³)

| Material | Weight | Volume |
|------------------------------------|--------------|---------------|
| Key #9540-HKP MMA | 8.1 lbs/gal | 1.0 gallon |
| Blended Mortar Aggregate or Quartz | 20-25 lbs | 1.5-2 gallons |
| Pigment Pack | N/A | 6.4 vol. oz. |
| Key #9000 MMA Hardener | Follow chart | Follow Chart |

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.

TECHNICAL DATA

| | |
|--|--|
| Viscosity @ 75°F | Paste Consistency |
| Percent Reactive | 100% |
| Volatile Organic Content (VOC) (EPA Method 24) | 40 g/L, compliant to low VOC Rule 1113 in all 50 states |
| Working Life | 10-20 minutes, will vary with temp. & amount of Hardener |
| Recoat Time | 30-60 minutes |
| Weight/gal | 8.1 lbs/gal |

PHYSICAL PROPERTIES

| | | |
|----------------------|-----------|-----------------|
| Compressive Strength | ASTM D638 | 3,500-4,000 psi |
| Tensile Strength | ASTM D638 | 800-1,000 psi |

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.

STORAGE

Store **KEY #9540-HKP** 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 (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.