KEY #9332 FLEXIBLE MMA

DESCRIPTION

KEY #9332 FLEXIBLE MMA is a higher viscosity, 100% reactive flexible methyl methacrylate resin used as a crack isolation or waterproofing membrane under various Key MMA Systems. KEY #9332 resists cracking caused by horizontal substrate movement, providing a crack resistant, resilient surface. KEY #9332 offers stress relieving properties for floor slabs showing movement and/or vibration. Excellent for use as an intermediate layer in systems used for loading docks and ramps, equipment rooms, large animal rooms, activity rooms, automotive and tooling industry, freezers, coolers, bridge decks, pedestrian walkways, parking garages, ship decks, joint repair, food industry, dairies, beverage industry, and numerous other applications.

KEY ADVANTAGES

• Fast cure for rapid recoat and return to service
• Crack resistant and waterproofing flexibility
• Meets USGBC LEED criteria for low VOC
• Reduces noise created by mechanical vibrations
• May be applied in thickness of 1/16”-1/8”+
• Use over wide temperature range—even below freezing
• May be blended with KEY #9430 to create KEY #9800 PUMMA for increased flexibility-consult with Key Resin

KEY CONSIDERATIONS

• Concrete 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 F1869 and less than 80% RH per ASTM F2170 unless Key Resin moisture mitigation system is used
• MMA odor must be contained and/or vented with negative air flow as necessary
• Small enclosed spaces require proper negative air flow ventilation to ensure proper curing

COLOR SELECTION

KEY #9332 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.

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 #9332 FLEXIBLE MMA is typically used in conjunction with fillers and fine aggregate and 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). 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.

Note: KEY #9332 MMA must be top coated or sealed with KEY #9418 MMA (use for body coat only), KEY #9526 MMA or KEY #9529 MMA. These can be either pigmented or clear.

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COMPOSITION

100% reactive methyl methacrylate resin.

COVERAGE

KEY #9332 yield of mixed slurry will vary depending on mix design used. Chart shows yield for 1.5-1.8 gallons slurry.

<table>
<thead>
<tr>
<th>Temp of Resin, Air &amp; Floor</th>
<th>Hardener by Volume oz/gal</th>
<th>Working Life (minutes)</th>
<th>Hardening Time (minutes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>+30°F</td>
<td>10 vol. oz. +0.5 v.o. #9101</td>
<td>~25</td>
<td>~75</td>
</tr>
<tr>
<td>+40°F</td>
<td>10 vol. oz.</td>
<td>~25</td>
<td>~70</td>
</tr>
<tr>
<td>+50°F</td>
<td>8 vol. oz.</td>
<td>~25</td>
<td>~60</td>
</tr>
<tr>
<td>+60°F</td>
<td>6-7 vol. oz.</td>
<td>~20</td>
<td>~60</td>
</tr>
<tr>
<td>+70°F</td>
<td>4 vol. oz.</td>
<td>~20</td>
<td>~45</td>
</tr>
<tr>
<td>+80°F - 90°F</td>
<td>3* vol. oz.</td>
<td>~20-25</td>
<td>~45-50</td>
</tr>
</tbody>
</table>

*Do not use less than 3 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.

COVERAGE

Coverage: 1/16” 36-44 ft²
1/8” 18-22 ft²
3/16” 12-15 ft²
1/4” 9-11 ft²
KEY #9332 FLEXIBLE MMA
Product Information Sheet

TECHNICAL DATA

<table>
<thead>
<tr>
<th>Percent Reactive</th>
<th>100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volatile Organic Content (VOC) (EPA Method 24)</td>
<td>18 g/L, compliant to low VOC Rule 1113 in all 50 states</td>
</tr>
<tr>
<td>Weight/gal</td>
<td>8.4 lbs/gal</td>
</tr>
<tr>
<td>Viscosity @ 75°F</td>
<td>1,100 - 1,200 cps</td>
</tr>
</tbody>
</table>

CURE/DRY TIME

| Working Life | 20-25 minutes, will vary with temp. & amount of Hardener |
| Recoop | 30-60 minutes, will vary with temp. & amount of Hardener |

PHYSICAL PROPERTIES

| Compressive Strength ASTM D638 | 2,500-3,000 psi |
| Elongation at Break ASTM D638 | 180% |
| Tensile Strength ASTM D638 | 75-80 psi |

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.

STORAGE

Store KEY #9332 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.

MAINTENANCE

KEY #9332 MMA is a basecoat resin used with various Key MMA Systems, refer to the specific system technical data sheet or sealer product information sheet for recommended maintenance instructions, or Key Resin Technical Bulletin #3 and #3-A.
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.