



KEY DIAMOND CHIP FLOORING

DESCRIPTION

KEY DIAMOND CHIP FLOORING is a 1/8"-1/4" moisture tolerant resin floor system which incorporates **KEY EPOCOAT** technology, a unique water-based epoxy allowing for installation on new concrete (5 days old) or any concrete substrate emitting excessive moisture vapor without fear of moisture related blistering or delamination. **KEY DIAMOND CHIP FLOORING** is sealed with various topcoats to meet particular performance requirements.

KEY DIAMOND CHIP FLOORING is ideal for any project with a requirement for USGBC LEED certification. Typical uses include corridors, lobbies, light manufacturing areas, classrooms, cafeterias, general purpose use, and numerous other areas.



KEY ADVANTAGES

- Low VOC, water based, meets LEED criteria.
- Decorative appearance.
- Unlimited concrete moisture vapor tolerance.
- May be installed over 5 day old concrete.
- Sanitary, does not support mold.
- Easy to install.
- Minimal downtime.

KEY CONSIDERATIONS

- Substrate temperature must be a minimum of 50°F.
- Substrate must be free of dirt, waxes, curing agents, and other foreign materials.
- Confirm specific topcoats with Key Resin to meet project and performance requirements.

COLOR SELECTION

KEY DIAMOND CHIP FLOORING is available in standard blends, solid colors and custom colors.

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**. Shot blast concrete slab to create a coarse texture surface profile minimum CSP-3. Alternate preparation methods must be approved by **Key Resin Technical Service**.

INSTALLATION

KEY EPOCOAT BASECOAT is a two-component material. Do not alter mixing ratios in any way. Part I and Part II are supplied in the correct mixing ratios. Always mix half or full units in the proportions supplied. Filler sand must be added to the body coat.

Mix material for approximately 3-4 minutes to form a homogenous consistency using a slow speed drill and "Jiffy" blade. Do not entrap excessive air. Scrape all sides and bottom of container to ensure thorough mixing. Follow all additional mixing and application instructions as outlined in **KEY DIAMOND CHIP FLOORING** Installation Instructions document.

TECHNICAL DATA

SYSTEM PERFORMANCE PROPERTIES

R.H. Tolerance ASTM-F2170	100%
Flammability ASTM D635	Self-extinguishing
Critical Radiant Flux ASTM E648	1.0
Fungus & Bacteria Growth MIL-F-52505 §4.4.2.11	Will not support growth of fungus or bacteria when subjected to mildew and bacteria tests.
Hardness ASTM D2240	70-75 Shore D (varies by urethane topcoat)
Bond Strength to Concrete ACI COMM #503R, ASTM D7234	300+ psi (concrete failure) 28 days cure of Epocoat
Resistance to Elevated Temperature MIL-D-3134F §4.7.4	No slip or flow at required temperature of 158°F
Coefficient of Friction ASTM D2047	>0.60 (varies by urethane topcoat)
Water Absorption ASTM D570	Nil
Thermal Shock Resistance ASTM C884	Passes
Abrasion Resistance ASTM D4060	10-30 mg (varies by urethane topcoat)
Chemical Resistance	Refer to topcoat data
Impact Resistance MIL-D-3134F 4.7.3	Withstands 16 ft/lbs. without cracking, delamination, or chipping
Compressive Strength ASTM C579, 7 days	5500 psi
Tensile Strength ASTM C307	580 psi
Flexural Strength ASTM C580	2100 psi
Thermal Coefficient of Expansion ASTM C531	22x10 ⁻⁶

AVAILABILITY

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

MAINTENANCE

After completing the application of **KEY DIAMOND CHIP FLOORING**, the installer should provide the owner with maintenance instructions relevant to the specific topcoats used and sanitation requirements of the owner, refer to Key Resin Technical Bulletins #3 and #3-A for initial recommendations. If floors become slippery due to animal fats, oil, grease, or soap film, clean and rinse thoroughly.

TECHNICAL SERVICE

Key Resin Company provides services and consultations on material selection, specifications, 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

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.**