



# KEY CHIP-100

## DESCRIPTION

**KEY CHIP-100** is a 100% solids, decorative, seamless, low maintenance, resinous flooring system consisting of a polymer resin primer coat, polymer resin base coat broadcasted with colored vinyl chips (flake), and a clear polymer resin sealer. The installed system reduces porosity and produces a dense, sanitary finish that minimizes bacterial growth and chemical penetration. The finish can be made non-slip resistant as required for wet areas.

An integral cove base can be installed in areas requiring seamless wall to floor coatings. For chemical resistant applications, specify **KEY CHIP-100-HP**.

## KEY ADVANTAGES

- Seamless, Sanitary Floor
- Excellent Wear and Abrasion Resistance
- Low Maintenance
- Zero VOC, Low Odor, Can Be Applied in Occupied Facilities
- Safe (Non-Skid) with Optional Non-Skid Additive
- Chemical Resistant and UV Light Resistant Finishes are Available
- Decorative Appearance
- Meets USGBC LEED Criteria

## KEY CONSIDERATIONS

- On or below grade installation must have an efficient 10-15 mil thick vapor barrier under the slab.
- Special treatments are necessary where hydrostatic pressure or excessive moisture may be present. Refer to Key Resin Technical Bulletin #1 for testing requirements.
- Substrate temperature must be a minimum of 55°F (Low temperature cure system available on request).
- Substrate must be free of dirt, waxes, curing agents, and other foreign materials.
- All control joints, cold joints and expansion joints in the substrate should be revealed through the floor system. It is optional to cover filled control joints (saw cuts) with the flooring material, but stress lines or cracks may occur if movement is significant. Refer to Key Lastic Chip 100 if a system designed around a flexible crack-isolation membrane is preferred.

## TYPICAL USES

**KEY CHIP-100** is an ideal system for use in light to medium traffic areas such as class rooms, corridors, lobbies, restrooms/lockers, cafeterias, laboratories, light manufacturing areas, residential garages, and numerous other areas requiring a chemical resistant, sanitary, wear resistant and decorative finish. Numerous other applications may be suitable, consult with Key Resin to review your specific project requirements.

## TECHNICAL DATA

### System Performance Properties

<b>Flammability</b>	ASTM D-635	Self Extinguishing
<b>Fungus &amp; Bacteria Growth</b> MIL-F-52505 §4.4.2.11		Will not support growth of fungus or bacteria when subjected to mildew and bacteria tests.
<b>Hardness</b>	ASTM D-2240	70-75 Shore D
<b>Bond Strength to Concrete</b> ACI COMM #403, Bulletin 59-43		300-400 psi (100% concrete failure) Varies by tensile strength of concrete
<b>Resistance to Elevated Temperature</b> MIL-D-3134F §4.7.4		No slip or flow at required temperature of 158°F
<b>Coefficient of Friction</b>	ASTM C-1028	0.70-80 Average Varies by applied finish texture, sealer type
<b>Water Absorption</b>	ASTM D-570	Nil
<b>Thermal Shock Resistance</b>	ASTM C-884	Passes
<b>Abrasion Resistance</b> (CS-17 wheel, 1 kg load, 1000 cycles)	ASTM C-501	32 mg Average Varies by sealer type
<b>Impact Resistance</b>	MIL-D-3134F 4.7.3	Withstands 16 ft/lbs. without cracking, delamination, or chipping.
<b>Compressive Strength (System)</b> ASTM C-579, 7 days		10,000 psi
<b>Tensile Strength (System)</b> ASTM D-638		5300 psi
<b>Thermal Coefficient of Expansion</b>	ASTM C-531	22x10 <sup>-6</sup>

### Neat Resin Performance Properties

<b>Compressive Strength</b> ASTM D-695	13,000 psi
<b>Ultimate Tensile Strength</b> ASTM D-638	4200 psi
<b>Tensile Elongation</b> ASTM D-638	6-8%
<b>Flexural Strength</b> ASTM D-790	7800 psi
<b>Flexural Modulus</b> ASTM D-790	2.5x10 <sup>5</sup>
<b>Hardness</b> ASTM D-2240	65-85 Shore D

## COMPOSITION

**KEY CHIP-100 FLOORING** is a polymer flooring system consisting of an epoxy or urethane resin primer coat, an epoxy, urethane or polyaspartic base coat broadcasted with decorative colored chips (flake), and a clear epoxy, urethane, or polyaspartic sealer. The selection of specific polymer resins depends on various factors and exposure requirements, consult with Key Resin for recommendations.

## COLOR & AVAILABILITY

**KEY CHIP-100** is available in a variety of standard color blends or custom colors.

**KEY RESIN Systems** are available throughout the United States, Canada, and a number of other countries. Contact the **KEY RESIN REPRESENTATIVE** in your area for details.

## APPLICATION

Concrete surfaces must be in sound condition and properly prepared prior to any **KEY RESIN COMPANY** flooring system installation. Refer to **Key Resin Company Technical Bulletin #1** for specific preparation guidelines and moisture testing requirements. Various other **Key Resin Technical Bulletins** may be applicable.

Installation of **KEY CHIP-100** involves several steps including priming, applying a base coat(s), broadcasting colored chips, grouting, and sealing. For specific installation guidelines consult **Key Resin Company's Installation Instruction Document**.

## **MAINTENANCE**

After completing the application of **KEY CHIP-100**, the installer should provide the owner with maintenance instructions. If floors become slippery due to animal fats, oil, grease, or soap film, clean and rinse thoroughly.

**KEY CHIP-100** is easily cleaned with neutral soaps or detergents. Routine mechanical scrubbing is recommended for all surfaces having a non-skid texture. Waxing is optional. Long periods of heavy traffic may cause wear patterns necessitating a maintenance application of a finish coat. Refer to Technical Bulletins #3 and #3-A for additional information.

## **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](http://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.**