



KEY SLU-50 SELF-LEVELING CEMENT UNDERLAYMENT

KEY SLU-50 SELF-LEVELING CEMENT UNDERLAYMENT is a superior quality, fast drying, dual purpose self-leveling cement. It can be used both as a durable and attractive interior wear surface and as a high performance underlayment for concrete substrates. **KEY SLU-50 SELF-LEVELING CEMENT UNDERLAYMENT** is approved for use underneath all Key Resin Flooring Systems and Coatings with project specific approval required. Contact Key Resin to review project details to confirm approval.

PERFORMANCE CHARACTERISTICS

- Dual purpose; for use as an attractive interior wear surface or as a high performance underlayment.
- Can be topically stained or integrally colored to match specific design needs and sealed with clear epoxy, urethane, acrylic or polyaspartic sealers depending on desired appearance/performance.
- For use as underlayment with all Key Resin Flooring and Coating Systems on project specific basis.
- For use as underlayment with carpet, VCT, etc.
- Can be applied directly over high moisture concrete (RH 95% or less per ASTM F2170) without risk for deterioration of adhesives and subsequent bond loss of glued down goods. Key Resin Flooring Systems and Coatings require initial application of Key Epocon SL for RH Probe 80% or higher.
- Available in standard grey, or white as special order at additional cost and added lead time.
- For indoor use only.

TECHNICAL INFORMATION

- Pour Depths: 1/4"-1", consult with Key Resin for applications less than or greater than this range.
 - Coverage: Approximately 22 ft²/50 lb. bag at 1/4" thickness.
 - Tensile Bond Strength (to concrete substrate): > 435 PSI.
 - Flexural Strength: 1160 PSI.
 - Compressive Strength (28 days): 6400 PSI.
 - Dry Density: 100 lbs./ft³
 - Installed Weight per ft² at 1/4" thickness: 2.08 lbs.
 - Ideal Slump Range: 11-12 inch. for underlayment, 10-11 inch. for wear surface.
 - Emissions (ammonia development): ≤ 0.7 mg/m³
 - Shrinkage: .03-.05%.
 - pH (wet state): 11.
 - Working Time: 15-20 minutes at 75°F.
 - Walkable Time: 1-2 hours at 75°F.
 - Cure Time for Floor Covering: Key Resin materials require 3 day cure. VCT, carpet and tile floor goods can be applied as soon as 6 hours depending on thickness.
 - Acceptable Substrates with Key Resin Flooring/Coatings: Concrete only, unless approved in writing.
 - Acceptable Substrates when used as wear surface: Concrete, VCT, ceramic/quarry tile.
 - Unacceptable Substrates unless approved in writing: Wood*, radiant heated substrates
- *Galvanized diamond metal lath reinforced wood is acceptable, or Key Resin Reinforcement Mat

PREPARATION OF SUBSTRATE

Substrate shall be free from dust, oil or any contaminants which may contribute to decreased bond. Surfaces must be mechanically cleaned and profiled to a sound and solid substrate by shot-blasting, scarifying, or coarse grit grinding to a minimum surface profile of ICRI CSP-3 or greater. Remove any loose particles such as adhesive residues and vacuum. Surface must be primed with **KEY #810 ACRYLIC** unless otherwise approved. **KEY SLU-50 SELF-LEVELING CEMENT** may be applied without **KEY #810 ACRYLIC** directly over fully broadcasted epoxy supplied by Key Resin or otherwise approved. Substrate temperature should be a minimum 43°F (+6°C) during application and air temperature maintained between 50-77°F (10-25°C). Adequate ventilation should be provided to ensure uniform drying. Moisture content of substrate for glued down goods should be RH 95% or less prior to application of **KEY SLU-50 SELF-LEVELING CEMENT**. Moisture content of substrate for Key Resin materials should be RH 79% or less prior to application of **KEY SLU-50 SELF-LEVELING CEMENT**. If moisture exceeds 79% RH, apply **KEY EPOCON SL. KEY #810 ACRYLIC** is not required primer when applying **KEY SLU-50 SELF-LEVELING CEMENT** over broadcast sand texture of **KEY EPOCON SL**. Contraction joints, construction joints, and cracks in the substrate which may be subject to movement after installation of **KEY SLU-50 SELF-LEVELING CEMENT** must be maintained as joints in the new surface, except for when **KEY #580** flexible epoxy membrane treatment is used with Key Resin Flooring Systems that are 1/8" thickness or greater. For use over wood substrates, metal reinforcement (diamond lath, standard steel concrete reinforcement lath or similar) must be used. Felt-backed floor coverings should be removed prior to application of **KEY SLU-50 SELF-LEVELING CEMENT**.

MIXING

KEY SLU-50 SELF-LEVELING CEMENT should be mixed with 5.0 to 5.5 quarts of water per 50 lb. bag when used as underlayment with glued down goods and 4.0 to 4.5 quarts when used as underlayment with Key Resin materials or as a wear surface. Do not over water. For manual application, add product to water and mix for 2-3 minutes with a heavy duty drill (650 rpm) to obtain a lump free mix. **KEY SLU-50 SELF-LEVELING CEMENT** can also be used in most pump equipment. Please consult with a Key Resin technical service representative to verify equipment compatibility. A slump test should always be performed to ensure that mix is homogenized and free from separation.

APPLICATION

Pour blended material onto substrate at a thickness of 1/4" to 1" (6-25 mm) for all surfaces, unless otherwise approved by Key Resin. Application over lightweight concrete must always be at minimum thickness of 1/4"-3/8". Perform slump test and adjust water accordingly until ideal patty size of 11-12 inches (for underlayment used with glued down goods) or 10-11 inches (for wear surface or underlayment used with Key Resin materials) is obtained. Immediately smooth the poured slurry with a smoother. After initial set of material, remove all overlap marks, seams, and inconsistencies by scraping with steel trowel. Material can be walked on after 1-2 hours at 75°F.

FLOORING INSTALLATION

Key Resin Flooring System materials can be applied to surface 3 days after installation at 1/4"-1/2" applied thickness at 75°F unless otherwise approved, additional time may be required for thicker applications. Shot blasting or coarse grit grinding is required to achieve a minimum surface profile of ICRI CSP-3 or greater, depending on the requirements of the specific Key Resin System. Finished floor goods such as VCT, carpet and ceramic/quarry tile can be applied to surface 6 hours after application at 75°F, depending on thickness, drying conditions and type of finished floor. Refer to manufacturer's installation and surface preparation instructions. Due to the relatively low pH level of **KEY SLU-50 SELF-LEVELING CEMENT**, finished floor goods can be applied rapidly without risk of adhesive bond failure. As a general rule, permeable materials such as carpeting may be adhesively or mechanically applied to **KEY SLU-50 SELF-LEVELING CEMENT** when RH level of substrate (i.e. concrete slab, etc.) is 95% or below. RH levels should be determined according to ASTM standard F2170. For levels greater than 95%, use **KEY EPOCON SL**. Always test performance suitability and compatibility of finished floor systems prior to their application. Sample surfaces should be installed as a field test as a representation of entire surface and tested for intended use. Always refer to finished floor manufacturer's recommendations regarding installation instructions, restrictions and compatibility.

LIMITATIONS

Not for installation over wood substrates unless metal reinforcement is used or prior written approval from Key Resin is received. Apply only over ceramic or quarry tile which is applied to a concrete substrate and well-bonded. For Indoor use only. Not for applications exposed to continuous water of intrusion. Must allow for eventual drying of substrates.

PACKAGING

KEY SLU-50 SELF-LEVELING CEMENT is available in 50 lb. plastic bags.

STORAGE

Product should be stored in dry conditions and in original packaging. Use within 6 months of date of manufacture to ensure proper physical properties. Product exceeding shelf life should be tested before use.

CAUTIONS

Information contained within this product data sheet is not legally binding. Information contained herein is provided in good faith but Key Resin Company will not be held liable for improperly applied or used products, nor the specific use of a product for a particular project. Information contained herein or otherwise administered by Key Resin Company or its authorized agents is based on the current and present knowledge of the products when used under normal circumstances and according to Key Resin Company recommendations. **WARNING:** Dust may cause skin, eye, nose, throat, or respiratory irritation. Avoid dust inhalation and exposure to dust, wear a NIOSH/MSHA-approved dust respirator. Use proper ventilation to reduce dust exposure. Portland cement is strongly alkaline and can be corrosive to eyes, skin, and respiratory tract. Wear eye and skin protection. If eye contact occurs, immediately flush thoroughly with water for 15 minutes and get medical attention. Do not ingest. If ingested and any discomfort occurs, call physician.

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.**

