

# KEY #635-MVP PLUS

## Product Information Sheet

### DESCRIPTION

**KEY #635-MVP PLUS** is a two component, modified epoxy system designed to seal concrete and reduce moisture vapor transmission to prevent floor covering failures on concrete slabs with elevated levels of moisture. **KEY #635-MVT** has proven to reduce moisture vapor emissions and be resistant to damage from sustained high alkalinity up to pH 14, the highest level. **KEY #635-MVT** meets USGBC LEED certification requirements and exceeds the performance requirements in ASTM F3010 “Standard Practice for Two-Component Resin Based Membrane-Forming Moisture Mitigation Systems”.

### KEY ADVANTAGES

- Reduces moisture vapor emission rate through concrete
- Exceeds requirements of ASTM F3010
- Resistance up to 25 lbs MVER on the Calcium Chloride Test (ASTM F1869)
- Resistance up to 100% RH on the RH Probe Test (ASTM F2170)
- Resistance to sustained high alkalinity up to pH 14
- Low odor for use in occupied areas
- Meets USGBC LEED criteria for low VOC
- High physical properties, chemical resistant
- Fast cure time—can be rapidly surfaced with a variety of finished flooring materials
- One coat application
- Moisture testing not required
- Sub-slab vapor retarder not required
- Special long-term warranties available when installed by approved contractors—call Key Resin for details

### KEY CONSIDERATIONS

- Substrate temperature must be a minimum of 50°F before, during and 72 hours after installation
- Concrete must be cured for a minimum of 5 days @ 75°F
- For use only on properly prepared shot blasted surfaces with a surface profile of CSP-3 to CSP-5; substrate must be free of dirt, wax, curing agents, densifiers, shake hardener, ASR byproducts, unreacted silicates, chlorides, sulfurous compounds, hydrocarbons, and other contaminants
- Fiber reinforced concrete: after surface prep, burn off exposed fibers with a torch
- Core testing to exam slab for contaminants is not required but is highly recommended and is the responsibility of the owner or owner’s representative—consult with Key Resin for details
- For slabs with previously failed flooring systems, core testing is required at owner’s expense—consult with Key Resin for recommendations before proceeding with work
- Alternative recommendations may be available for slabs with water soluble unreacted sodium/potassium silicates or chlorides—consult with Key Resin
- Additional concrete requirements: contact Key Resin
- Concrete outgassing may create pinholes in Key #635-MVT, recoat if pinholes are evident—consult with Key Resin

### TYPICAL USES

**KEY #635-MVT** is designed as a negative side moisture vapor treatment to reduce moisture vapor transmission through concrete slabs as required by moisture vapor sensitive floor coverings. **KEY #635-MVT** can also be an effective primer for fast recoat under many **Key Resin Flooring Systems**.

### APPLICATION

#### SURFACE PREPARATION

Surface Preparation is the most critical portion for successful application and long-term performance of this material. All substrates must be properly prepared as outlined in **Key Resin Technical Bulletin #1** including possible additional requirements specifically for Key #635-MVT. Consult with the **Key Resin Technical Service Department**.

#### INSTALLATION

**KEY #635-MVT** requires mechanical mixing and spreading with a squeegee and medium nap roller. For complete installation instructions, contact **Key Resin Technical Service**.

#### CLEAN UP

Clean skin with soap and water. Tools and equipment should be cleaned with xylene or lacquer thinner. Consult Safety Data Sheet (SDS) for safety and health precautions.

#### FLOOR COVERING INSTALLATION

Consult with both **Key Resin Technical Service** and the manufacturers of the floor covering material, adhesive (if used), and self-leveling cement underlayment (if used) to determine all necessary requirements.

### COMPOSITION

**KEY #635-MVT** is a highly cross-linked, alkaline resistant epoxy composition.

### CURE/DRY TIME

Pot Life	20-25 minutes @ 75°F
Recoat Time	4-5 hrs @ 75°F Minimum 24 hrs @ 75°F Maximum

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### TECHNICAL DATA

Mixing Ratio	2.4 Parts A to 1 Part B by Volume
Solids Content	100% Solids
Volatile Organic Content (VOC) (EPA Method 24)	<50 g/L, compliant to low VOC Rule 1113 in all 50 states

### AVAILABILITY

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

### 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 Sales/Technical Representatives** are available to assist you. Telephone 888.943.4532 or visit [www.keyresin.com](http://www.keyresin.com).

### PHYSICAL PROPERTIES

Flammability	ASTM D635	Self-Extinguishing
Flash Point	Pensky-Marten Closed Cup	>200°F
Hardness, Shore D	ASTM D2240	80
Adhesion to Concrete	ASTM D7234	300-400+ psi average (Concrete Failure, varies by concrete strength)
Tensile Modulus	ASTM D638	550,000 psi
Permeance at 16 mils	ASTM E96	<0.1 grains/hr/ft <sup>2</sup> /in.Hg (perms) Exceeds ASTM F3010 requirements
Compressive Modulus	ASTM D695	325,000 psi
Compressive Strength	ASTM D695	13,800 psi
Tensile Strength	ASTM D638	7,100 psi
Tensile Elongation	ASTM D638	1.5%
Alkaline Resistance	ASTM D1308	10% Sodium Hydroxide - unaffected 50% Sodium Hydroxide - unaffected 7 day and 14 day immersion

### WARRANTY

**Key Resin Company** ("Key") warrants for a period of one (1) year (unless otherwise superseded by a special project-specific warranty) 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.