

Bid Documents
Attachments

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As-built Architectural drawings of Samuelson Hall



096700 – ELASTOMERIC FLUID-APPLIED FLOORING

(SMOOTH FLOOR 2023 : SECTION 09670)

KEY LASTIC MECHANICAL EQUIPMENT – INTERIOR USE SMOOTH FLOOR

PART 1 GENERAL

1.01 SUMMARY Key Resin No Substitutes

- A. Work Specified in this Section:
 1. Fluid applied seamless flooring and integral formed base.
 2. Joint, edge, and termination strips.
 3. Prior to installation of structural floor slab, advise [General Contractor] [Construction Manager], in writing, of all requirements of concrete substrate regarding finish, level tolerance, and curing; see INSPECTION in Part 3.
 4. Locate all flexible joints required. See submittals below.
 5. Accessories necessary for complete installation.
- B. Related Sections:
 1. Sealants: Urethane caulk.

1.03 DEFINITIONS

- A. Elastomeric waterproofing resin surfacing system. Specified under this section is referenced on the drawings as **mechanical room floor coating**. *change to drawing name or delete.*

1.04 SYSTEM DESCRIPTION

Solvent free, very low odor, suitable for application in occupied buildings

- A. Provide floor system and base where scheduled on drawings and the following related area:
 1. Floor penetrations
 2. Machinery pedestals and equipment footings.
 3. Base required; Intersections of flooring at permanent vertical surfaces;
 - a. Columns
 - b. Pilaster
 - c. Walls; except cabinet toe spaces.
 4. System shall be 80-100 mil (3/32 inch) Key Lastic ME, fluid applied elastomeric system. The waterproof, two component urethane or flexible epoxy will allow for

horizontal movement of up to 1/8" inch. The surface finish shall be an aggregate filled self leveling two component epoxy.

1.05 SUBMITTALS

- A. Samples: Color match by Manufactures color chart or hard samples
- B. Certification: Submit two copies of suppliers / manufacturers tech data sheets & or installation data
- C. Manufacturers Application Instructions: Submit descriptive data and specific recommendations for mixing, application, curing including any precautions of special handling instructions required to comply with the Occupational Safety and Health Act.
- D. Shop Drawings: Shop Drawings shall be furnished showing installation of cove base and termination details, and details at floor material transitions and where adjoining equipment. Locate and provide detailing for flexible joints required for flooring in area of installation.
- E. Maintenance Instructions: Submit current copies of the flooring manufacturer's printed recommendations on maintenance methods and products. Submit in accordance with Section 01730 - Operation and Maintenance Manuals.

1.06 QUALITY ASSURANCE

- A. Materials used in the floor surfacing shall be "Key Resin Key Lastic ME Floor" "smooth".
- B. Installation shall be performed by an applicator with minimum 3 years experience in work of similar nature and scope. Installer must be approved by the manufacturer of the floor surfacing materials. The contractor shall furnish a written statement from the manufacturer that the installer is acceptable.
- C. Installer to verify locations of all flexible joints required by the provisions of this Section and by the recommendations of the related material manufacturers.
 - 1. Joint locations may or may not be shown in drawings.
 - 2. Refer to drawings required under SUBMITTALS above.
- D. Installer to keep daily log of the date of installation, room number, type, color, and method of application of product being installed. Log must be available for inspection by the Architect upon request.
- E. Contractor to have proven experience with specified system.
- F. Mock-up: Not required from Key Certified experienced installers
- G. Qualifications:
 - Installer: Must be acceptable to Architect and Manufacturer.

1.07 PROJECT CONDITIONS

- A. Maintain the ambient room and the floor temperatures at 60 degrees Fahrenheit, or above, for a period extending from 72 hours before, during and after floor installation. Concrete to receive surfacing shall have cured for at least 28 days and shall have been free of water for at least 7 days.
- B. Advise other trades of fixtures and fittings not to be installed until flooring is cured and protected.

1.08 PROTECTION

- A. Protect adjacent surfaces not scheduled to receive the flooring by masking, or by other means, to maintain these surfaces free of the flooring material.
- B. Provide adequate ventilation and fire protection at all mixing and placing operations. Prohibit smoking or use of spark or flame producing devices within 50 feet of any mixing or placing operation.
- C. Provide polyethylene or rubber gloves or protective creams for all workmen engaged in applying products containing epoxy. Follow OSHA / WISA PPE regulations and recommendations

1.09 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. All materials shall be delivered to project site in original manufacturer's sealed containers including type of material, batch numbers, date of manufacture, and pertinent labels intact and legible.
- B. Store materials in dry protected area at a temperature between 50° F to 80° F.
- C. Follow all manufacturer's specific instructions and prudent safety practices for storage and handling.

1.10 WARRANTY

- A. Contractor to guarantee work under this Section to be free from defects of material, discoloration, and installation for the duration of the warranty period. Defects occurring during warranty period shall be repaired, in a manner satisfactory to the Owner and the Architect, at no additional cost to the Owner.

Warranty Period: One (1) Year.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Specifications and quality of design standard (basis of design) based on Key Resin Company: Key Lastic ME smooth floor.
Key Resin Company: 888-943-4532, www.keyresin.com,
Jeff Nelson 208 818 1245
- B. Substitutions not considered for this project. Previous ME rooms have proven track record with Key Lastic ME.

2.02 MATERIALS

- A. Cementitious Tile Backboard: See Section 09250 - Gypsum Drywall.
- B. Prime Coat: Two component penetrating damp-proof epoxy. Key 502 Low modulus Primer
- C. Aggregates:
 - 1. Blended quartz color sand for base and/or silica, 30 mesh.
- D. Membrane/Matrix: Key 580 Flexible Epoxy
- E. Seal coat :
 - Seal coat: Colored two component epoxy, Key 520.

2.03 MIXING

- A. Apply Key Lastic ME, according to manufacturing instructions.
- B. Provide Smooth easy cleanable finish. Samples may be desired by CWU Phys plant.
- C. Provide 2 inch KR520 coated wall to floor Integral, with formed cant/cove base.

2.04 FINISHES

- A. Color as selected by CWU from <https://www.keyresin.com/media/3273/lc-standard-solid-color-card-2022-pdf-v16.pdf> Key Resin colors section, "Epoxy, MMA, Polyaspartic, #467 Urethane & #570 Polysiloxane"

PART 3 EXECUTION

3.01 PREPARATION

Notify CWU in writing prior to commencing work of any conditions deemed unsatisfactory for the installation; installation of flooring materials is understood as acceptance of the substrate as satisfactory. On site conditions review, before bidding, is responsibility of installer.

- A. Preparation of Surface:
 - 1. .Inspect surfaces to receive flooring and verify that condition is smooth and free from conditions that will adversely affect execution, permanence, or quality of work.
 - Remove all projections, all debris detrimental to flooring system, and dirt, oil contaminates, grease, and surface coatings affecting bond.
 - Remove failed caulk & all silicone and it's residue at all floor penetrations. Refill with urethane caulk and allow to "skin dry" before coating floor.
 - 2. **Floor condition:** Survey the floor if suspect for moisture content and moisture vapor emission problems. Test and correct if above 3lbs / 1000 sf. by using Epocoat MVT primer system. Moisture vapor emission and moisture content testing must conform with the requirements of ASTM F-1869-98 (Calcium Chloride Test) and ASTM F-

2170-02 (Relative Humidity Probe Test). If positive MVT, previous coating shall be removed before application of any MVT system

a. **Previous coated concrete**

All loose cracked or unsound coating must be removed to bare concrete. Unsound concrete must be repaired to grade level with epoxy or approved cementitious grout (ex. isocrete 1500/4000). All well adhered and sound coating can be diamond ground or rough sanded to remove all gloss and provide well scratched surface for new coating to adhere. All surface dust must be removed

- b. Treat cracks and non-expansion joints in concrete using manufacturer's recommended practice. Rout out crack/joint and fill with epoxy to reduce cracking through floor. Honor all expansion joints with suitable urethane caulk

3.02 INSTALLATION

Install all floor materials in strict conformance with manufacturer's instructions.

- A. Integral Cove Base: Where needed, provide integral epoxy cove radius or 45° cant base at floor to wall intersection. Coat wall at minimum height 2" with KR520 emulating a straight line.
- B. Prime entire surface with Key 502 epoxy primer 320 sqft per gallon. 5 mils.
- C. Apply elastomeric membrane Key 580* flexible epoxy: Install in single coat to a minimum dry film thickness of 35-40 mils. Allow to cure. 18-24 hrs @ 68 deg F. see tech sheet.
- D. Apply Key 580 Flexible Epoxy at minimum dry film thickness of 10 mils and toss a light broadcast small size quartz aggregate to rejection to achieve a mechanical texture for the next coat. Size 50-70 silica is common. Allow the floor to cure as above. Sweep excess sand and vacuum, a light sanding or rubbing with a stone to aid in achieving a uniform consistent flat surface is recommended.
- E. Apply self leveling epoxy seal coat using SLF powder and Key 520 at 24 mils / 66 sq/ft minimum per gallon to provide a flat uniform, smooth dense surface. Ratio: 3 resins : 1 SLF, by volume.
- G. Finished work to be smooth surface, uniform in thickness, sheen, color, pattern and texture, and free from defects detrimental to appearance
- H. Erect warning signs to stay off (or apply temporary protection) until floor is fully cured.

*Key 400 elastomeric may be used in lieu of KR580 flexible epoxy. Apply thickness as written above and follow KR400 data instructions.

END OF SECTION

PRODUCT DESCRIPTION

Dymonic® 100 is a single-component, medium-modulus, non-sag polyurethane sealant. Dymonic 100 offers a high-performance, high-movement, durable, flexible seal that performs excellently in moving joints and exhibits tenacious adhesion to substrates once fully cured.

BASIC USES

Typical applications for Dymonic 100 include expansion and control joints, precast concrete panel joints, perimeter caulking (windows, doors, and panels), aluminum, masonry, and vinyl siding. Dymonic 100 is also an excellent choice as a fluid applied flashing material in rough opening perimeters for fenestration/window, door and curtain wall applications. Dymonic 100 is suitable for water immersion applications and will not out gas.

FEATURES & BENEFITS

Dymonic 100 has been formulated with an innovative polymer technology, similar to TREMproof® 250GC and Vulkem® 45SSL, that allows it to be highly versatile and grants its unique capability to adhere to damp or green concrete without outgassing. The skin time of Dymonic 100 is 2 hours and the tack-free time is 6 to 8 hours. This significantly reduces dirt attraction and improves the overall aesthetic look.

Dymonic 100 has a movement capability of +100/-50% in typical field conditions with excellent performance in moving joints. The formula is low-VOC and UV-stable, meaning Dymonic 100 will not crack, craze, or yellow under extreme UV exposure. Additionally, Dymonic 100 is jet fuel-resistant and compatible with many common construction substrates.

- Compatible with and can be coated over with Tremco's Vulkem Deck Coatings, ExoAir® Air Barrier products and the cold, fluid-applied TREMproof® line of below-grade waterproofing products
- Accepted for use over Nudura Insulated Concrete Forms (ICF)

There are 21 standard color options available for Dymonic 100, with the option of painting over the sealant.

Dymonic 100 meets or exceeds the requirements of the following specifications:

- ASTM C920 Type S, Grade NS, Class 50, Use NT, T, M, A, O, I
- U.S. Federal Specification TT-S-00230C, Class A, Type II
- CAN/CGSB-19,13-M87
- International Code Council (ICC) Section R703.8 Flashing
- AAMA 714-15 Specification for Liquid-Applied Flashing
- NFPA 285 Listed Component

Accepted fire rated systems: FF-D-1186, FW-D-1117, HW-D-1122, WW-D-1200, and BW-S-0006

AVAILABILITY

Immediately available from your local Tremco Sales Representative, Tremco Distributor, or Tremco Warehouse in 10.1 oz (300 mL) cartridges and 20 oz (600 mL) sausages.

COLORS

Available in Almond, Aluminum Stone, Anodized Aluminum, Beige, Black, Bronze, Buff, Dark Bronze, Gray, Gray Stone, Hartford Green, Ivory, Light Bronze, Limestone, Natural Clay, Off White, Precast White, Redwood Tan, Sandalwood, Stone, and White.



LIMITATIONS

Use with adequate ventilation. Always utilize the accompanying SDS for information on Personal Protective Equipment (PPE) and Health Hazards. Not recommended for use in chlorinated, potable, heavy or waste water. Although Dymonic 100 is paintable, this does not imply adhesion to and compatibility with all paints. Consult Tremco Technical Bulletin No. S-09-05 or Tremco Technical Services for more information.

WARRANTY

A repair or replacement warranty is available on all Tremco products. Visit <https://www.tremcosealants.com/warranties/> for details.

TYPICAL PHYSICAL PROPERTIES

PROPERTY	TEST METHOD	TYPICAL RESULTS
Rheological Properties	ASTM C639	Non-sag (NS), 0" of sag in channel
Hardness Properties	ASTM C661	40 ± 5
Weight Loss	ASTM C1246	Pass
Skin Time	ASTM C679	2 to 3 hr
Tack Free Time	73.4°F (23°C) 50% RH	6 to 8 hr
Stain and Color Change	ASTM C510	Pass
Adhesion to Concrete	ASTM C794	35 pli
Adhesion to Concrete After Immersion	ASTM C794	30 pli
Adhesion to Green Concrete	ASTM C794	>25 pli
Adhesion to Damp Concrete	ASTM C794	>20 pli
Effects of Accelerated Aging	ASTM C793	Pass
Movement Capability	ASTM C719	± 50%
Movement Capability	ASTM C719 (Modified)	+100/-50%
Tensile Strength	ASTM D412	350 to 450 psi
% Elongation	ASTM D412	800 to 900%
Modulus at 100%	ASTM D412	75 to 85 psi
Tear Strength	ASTM D412	65 to 75 psi
Service Temperature		-40 to 180 °F (-40 to 82 °C)
Application Temperature		40 to 100 °F (4 to 37 °C) *
Smoke Development, Fire Spread	ASTM E84	5, 5
Smoke Development, Fire Spread	CAN S102	10, 10
Fire Resistance of Assembly	NFPA 285	Pass
Crack Bridging	ASTM C1305	Pass
Nail Seal Ability	ASTM D1970 Section 7.9	Pass

*For temperatures below 40 °F, please refer to the Technical Bulletin, Cold Temperature Sealant Application Recommendations.

Please refer to our website at www.tremcosealants.com for the most up-to-date Product Data Sheets.

NOTE: All Tremco Safety Data Sheets (SDS) are in alignment with the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) requirements.

D100-DS/1122



Tremco Construction Products Group (CPG) brings together Tremco CPG Inc. and its Dryvit and Nudura brands; Willseal; Prebuck LLC; Tremco Barrier Solutions, Inc.; Weatherproofing Technologies, Inc. and its Pure Air Control Services and Canam Building Envelope Specialists offerings; and Weatherproofing Technologies Canada, Inc.



tremcosealants.com | 800.321.7906



Construction Products Group

3735 Green Rd. | Beachwood, OH 44122
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PRODUCT DESCRIPTION

Dymonic® FC is a fast-curing, single-component, low-modulus, hybrid sealant formulated with proprietary silane end-capped polymer technology. Dymonic FC offers a high-performance, durable, flexible seal that performs excellently in moving joints and exhibits tenacious adhesion to substrates once fully cured.

BASIC USES

Typical applications for Dymonic FC include expansion and control joints, precast concrete panel joints, perimeter caulking (windows, door, panels), EIFS, aluminum, masonry, and vinyl siding.

FEATURES & BENEFITS

Dymonic FC is fast-curing with a skin time of 60 minutes and a tack-free time of 3 to 4 hours. This significantly reduces dirt attraction and improves the overall aesthetic look. Additionally, Dymonic FC will not green crack due to early movement. The low-modulus nature of Dymonic FC allows it to provide exceptional movement capability of $\pm 35\%$.

There are 19 standard color options available for Dymonic FC, with the option of painting over the sealant. Dymonic FC is easy to use for immediate application with conventional caulking equipment, with no mixing required.

Dymonic FC meets or exceeds the requirements of the following specifications:

- ASTM C920 Type S, Grade NS, Class 35, Use NT, M, A and O
- ASTM C1248
- U.S. Federal Specification TT-S-00230C Class A, Type II
- CAN/CGSB 19.13-M87
- UL 2079 (ASTM E 1966), CAN-4-S115M

Accepted fire rated systems: FF-D-1063, FW-D-1059, HW-D-1054, WW-D-1054



AVAILABILITY

Immediately available from your local Tremco Sales Representative, Tremco Distributor, or Tremco Warehouse in 10.1 oz (300 mL) cartridges and 20 oz (600 mL) sausages.

COLORS

Available in Almond, Anodized Aluminum, Aluminum Stone, Beige, Black, Bronze, Buff, Dark Bronze, Gray, Hartford Green, Ivory, Light Bronze, Limestone, Natural Clay, Off White, Precast White, Redwood Tan, Stone and White.

LIMITATIONS

Do not apply over damp or contaminated surfaces. Do not use under polyurethane deck coatings.

Use with adequate ventilation. Always utilize the accompanying SDS for information on Personal Protective Equipment (PPE) and Health Hazards. Not recommended for use in chlorinated, potable, heavy or waste water.

Although Dymonic FC is paintable, this does not imply adhesion to and compatibility with all paints. Consult Tremco Technical Bulletin No. S-09-05 or Tremco Technical Services for more information.

WARRANTY

A repair or replacement warranty is available on all Tremco products. Visit <https://www.tremcosealants.com/warranties/> for details.

TYPICAL PHYSICAL PROPERTIES

PROPERTY	TEST METHOD	TYPICAL RESULTS
Service Temperature		-40 to 185 °F (-40 to 85 °C)
Rheological Properties	ASTM C639	Non-sag (NS), 0" of sag in channel
Extrusion Rate	ASTM C1183	93.1 mL/min
Hardness Properties	ASTM C661	25
Weight Loss	ASTM C1246	Pass
Skin Time	ASTM C679	1 hr
Tack Free Time	73.4°F (23°C) 50% RH	3 to 4 hr
Stain and Color Change	ASTM C510	No visible color change/No stain
Adhesion to Concrete	ASTM C794	18 to 22 pli (80 to 98 N)
Adhesion to Aluminum	ASTM C794	20 to 25 pli (89 to 112 N)
Effects of Accelerated Aging	ASTM C793	Pass
Movement Capability	ASTM C719	± 35%

Please refer to our website at www.tremcosealants.com for the most up-to-date Product Data Sheets.

NOTE: All Tremco Safety Data Sheets (SDS) are in alignment with the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) requirements.

DFC-DS/1122



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EUCALASTIC 1NS

SINGLE-COMPONENT, NON-SAG POLYURETHANE HYBRID SEALANT

PACKAGING

10.1 oz (300 mL) cartridge, 30 per case
Code: 274§ 95

APPROXIMATE YIELD

EUCALASTIC 1NS is available in cases of 10.1 oz. (300 ml) cartridges (30 cartridges per case). One cartridge yields 18 in³ (294 cm³), and will cover 24 linear feet (7.3 m) in a 1/4" x 1/4" (6 mm x 6 mm) joint.

CLEAN UP

Tools, equipment and general clean-up can be done with EUCO SOLVENT or xylene before the material dries. Removal of dried Eucalastic 1NS can only be done by mechanical means.

SHELF LIFE

18 months in original, unopened container

SPECIFICATIONS AND COMPLIANCES

- ASTM C920, Type S, Grade NS, Class 35, Use NT, M, A, and O
- ASTM C1248
- U.S. Federal Specification TT-S-00230C Class A, Type II
- CAN/CGSB 19.13-M87

DESCRIPTION

EUCALASTIC 1NS is a single-component, non-sag, low-modulus, moisture-cured, polyurethane hybrid joint sealant. EUCALASTIC 1NS is formulated with a unique silane-terminated polyurethane polymer, that provides unequalled performance against stand-alone polyurethane sealants. EUCALASTIC 1NS is an extremely durable sealant in dynamic joints, offering persistent adhesion once fully cured.

PRODUCT CHARACTERISTICS

FEATURES/BENEFITS

- Skins rapidly and is tack-free in 3 to 4 hours @ 75 °F (24 °C)
- Service temperature range: -40 °F to 185 °F (-40 °C to 85 °C)
- Remains adhesively and cohesively bonded during temperature cyclic movement
- Extraordinary movement capability of +/- 35%
- Can be painted

PRIMARY APPLICATIONS

- Concrete control & expansion joints
- Precast concrete panels
- EIFS
- Window & door perimeters
- Masonry
- Interior and exterior applications
- Above and below grade

APPEARANCE

Eucalastic 1NS is a single-component sealant available in the following colors: Black, Bronze, Gray, Limestone, Stone, and White.

TECHNICAL INFORMATION

The following are typical values obtained under laboratory conditions. Expect reasonable variation under field conditions.

Test Method	Test Property	Values
ASTM C639	Rheology	Grade NS (Non-Sag) < 0.1875" (4.8 mm)
ASTM C1183	Extrusion Rate	57.9 ml/min
ASTM C661	Hardness Shore A	25
ASTM C719	Movement Capability	+/- 35%
-	Skin Time	1 hour
ASTM C679	Tack-Free Time	5 to 6 hours
ASTM C794	Adhesion-in-Peel	Concrete 18-22 Pli (31.5-38.5 N/cm) No adhesion loss
ASTM C510	Stain & Color Change	No stain/No color change
ASTM C793	Effects of Accelerated Aging	No Cracking or chalking

DIRECTIONS FOR USE

Joint Dimensions: Joint width should be 4 times the expected joint movement, but not less than 1/4" (6 mm). Width to depth ratios should be equal for joints that are 1/4" (6 mm) to 1/2" (13 mm) in width. If joint width is 1/2" (13 mm) to 1" (25 mm), the depth of EUCOLASTIC 1NS should be 1/2 the width, with 1/2" (13 mm) being the maximum allowable depth of EUCOLASTIC 1NS. Use backer rod or bond breaker tape to limit the depth of application and to prevent three-sided adhesion. **Applications of EUCOLASTIC 1NS that are deeper than what is recommended can cause bubbling or incomplete curing of the material.**

Surface Preparation: New concrete must be minimum of 28 days old. The joint must be clean and sound. All oil, dirt, debris, paint and any other foreign material must be removed. The final step in cleaning should be the complete removal of all residue by solvent wiping the joint. Substrates must be dry at time of application. Wet or damp joints will cause bubbling of the sealant.

Priming: EUCOLASTIC 1NS typically bonds to common construction materials without a primer. However, due to the variance in surface textures of some non-porous materials (metal, glass, certain stones, etc.), a field adhesion test is recommended on these materials to verify adhesion or the need for a primer. The field adhesion test for joint sealants is described in ASTM C1193. EUCOLASTIC PRIMER is required to prime the joint facing when the sealant will be in service under water after application and curing. See Eucolastic Primer technical data sheet for use instructions.

Mixing: EUCOLASTIC 1NS is a single-component sealant and requires no pre-blending. It should be used directly from the cartridge.

Placement: Ensure that all the necessary preparation work is completed. Place backer rod or bond breaker tape into the joints and make sure they are secured in place. Using standard caulking guns, dispense the sealant directly from the cartridge into the joint. Once the joint is full, tool the sealant using a rounded spatula to create a concave surface. The concave shape will help the sealant stretch properly as the joint moves. Tooling will also put a little pressure on the sealant to aid with initial adhesion.

Curing: EUCOLASTIC 1NS requires no special curing. The moisture in the air and substrate will cure the sealant. A skin forms on the surface in about 1 hour at 75 °F (24 °C) and 50% relative humidity. It will be tack-free in 3-4 hours. EUCOLASTIC 1NS cures at rate of about 1/16" (1.6 mm) per day. The cure time will increase or decrease as temperatures and humidity levels fluctuate.

PRECAUTIONS/LIMITATIONS

- The surface temperature of the substrate must be at least 40 °F (4 °C) and rising, but below 150 °F (66 °C), at the time of application.
- Do not use Eucolastic (1NS or 1SL) in submerged applications in swimming pools.
- For best results, store sealant at room temperature prior to application.
- Contact surfaces must be clean and dry.
- Do not use underneath a polyurethane deck coating unless the sealant has fully cured.
- In all cases, consult the Safety Data Sheet before use.

Rev. 10.22

WARRANTY: The Euclid Chemical Company ("Euclid") solely and expressly warrants that its products shall be free from defects in materials and workmanship for one (1) year from the date of purchase. Unless authorized in writing by an officer of Euclid, no other representations or statements made by Euclid or its representatives, in writing or orally, shall alter this warranty. EUCLID MAKES NO WARRANTIES, IMPLIED OR OTHERWISE, AS TO THE MERCHANTABILITY OR FITNESS FOR ORDINARY OR PARTICULAR PURPOSES OF ITS PRODUCTS AND EXCLUDES THE SAME. If any Euclid product fails to conform with this warranty, Euclid will replace the product at no cost to Buyer. Replacement of any product shall be the sole and exclusive remedy available and buyer shall have no claim for incidental or consequential damages. Any warranty claim must be made within one (1) year from the date of the claimed breach. Euclid does not authorize anyone on its behalf to make any written or oral statements which in any way alter Euclid's installation information or instructions in its product literature or on its packaging labels. Any installation of Euclid products which fails to conform with such installation information or instructions shall void this warranty. Product demonstrations, if any, are done for illustrative purposes only and do not constitute a warranty or warranty alteration of any kind. Buyer shall be solely responsible for determining the suitability of Euclid's products for the Buyer's intended purposes.

Technical Bulletin #1-A Surface Preparation Existing Resin Flooring and Coating Systems

I. GENERAL INFORMATION

Key Resin Company's Flooring Systems and Coating Systems are designed to produce dense, long-term, seamless floor protection resistant to wear, chemical attack, and dirt penetration. In time, however, high traffic areas may become noticeable. It is possible to renew **Key Resin** Flooring Systems or other properly bonded* resin flooring or coating systems to their original appearance by cleaning and resealing with the appropriate finish as dictated by the system in place (epoxy over epoxy, acrylic over acrylic, etc.). Prior to this application, the Floor System or Coating System must be prepared by stripping all waxes, sealers, and other contaminants. It is also important to specify which Flooring System was originally installed to maintain optimal performance of the System when resealing. Contact your **Key Representative** for further information. Specific considerations for **Key Resin Company's** Systems have been outlined below.

II. CLEANING AND SURFACE PREPARATION GUIDELINES

1. Detergent and/or solvent wash to remove any surface contamination.
2. Perform adhesion testing and "sound" existing floor material to identify any poorly adhered areas.
3. Hand and power tool clean to remove any poorly adhered and/or deteriorated coating.
4. Repair all surface defects, cracks, and replace poorly adhered existing material with appropriate resurfacing material.
5. Mechanically abrade surface to impart a uniform surface profile and de-gloss the surface. Procedures may vary from using a floor buffer with 60-100 grit sandpaper/abrasive screens to heavy duty grinders with carborundum stones/diamond plugs or shotblasting equipment.
6. New coating application process must meet material application conditions: Ambient, surface, and cure temperatures, relative humidity, etc.
7. Surface shall be clean and dry before application of new coating.
8. Follow mixing, application and curing instructions of the new coating product.

***Note:** Be aware that any guarantee provided by the installation contractor for adhesion pertains to only the new material bonded to the old material. It does not pertain to the adhesion of the old material bonded to the concrete substrate. Be aware that the installation contractor has the ultimate responsibility and authority to approve the substrate (old coating or concrete).

REV 08/30/21 v1.0

Technical Bulletin #3 Key Flooring Systems General Care and Maintenance Instructions

I. GENERAL INFORMATION

Key Resin Flooring Systems are designed to produce dense, long-term, seamless floor protection resistant to wear, chemical attack, and dirt penetration. **Key Resin** floors can be generally maintained with a routine program similar to any good-housekeeping procedures. Thorough sweeping and mopping to remove loose particles and soil along with prompt removal of grease and other contaminants will prevent most **Key Resin Flooring Systems** from early deterioration. Seamless floors are easier to maintain than their counterparts in the resilient flooring industry because they are seamless and therefore do not provide cracks and crevices to entrap contaminants.

Key Resin Flooring Systems demonstrate superior resistance to wear and abrasion. In time, however, high traffic areas become noticeable. It is possible to renew **Key Resin Flooring Systems** to their original appearance by cleaning and resealing with the appropriate finish as dictated by the system in place. Prior to this application, the Floor System must be prepared by stripping all waxes, sealers, and other contaminants. It is also important to specify which Flooring System was installed to maintain optimal performance of the System when resealing. Contact your **Key Resin Representative** for further information. Specific considerations for **Key Resin Company's Systems** have been outlined below.

II. DAILY MAINTENANCE

- A. **Daily Sweep Key Resin Flooring Systems.** Routine sweeping, then mopping with common household detergents or soaps, followed by thorough rinsing, prevents damage to the finish from the grinding effect of minute abrasive particles common to work areas.
- B. Treated mops may be used to remove abrasive particles.
- C. Promptly remove grease and other contaminants.
- D. Promptly **Rinse Off** all chemical solutions that may attack the surface.

III. WEEKLY MAINTENANCE

All Key Resin Floors should be mopped on a regular basis with a neutral detergent or soap, and thoroughly rinsed. Water should be changed frequently, and mops rinsed often.

Smooth Floors are readily cleaned in this manner unless they are subject to heavy traffic and steel or hard rubber wheels that can leave marks that require extra attention. In addition, non-skid surfaces can be resistant to ordinary mopping. Severe spillage or routine major contamination also requires special cleaning protocols.

The key to getting a **Textured Floor** clean is to scrub it with a bristle brush or mechanical

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scrubber that will dislodge dirt and grease from the depressions of the textured surface.

IV. PROBLEM AREAS

Severe problem areas may be treated as follows:

- A. **Grease:** Greasy deposits are best attacked with tri-sodium phosphate or a commonly available bio-degradable degreaser. Contact your **Key Resin Representative** for specifics.
- B. **Dairy Products** should be removed immediately as they may cause staining to some surfaces.
- C. **Tire Marks:** Scrub thoroughly with a stiff bristle brush using the same bio-degradable degreaser as mentioned above.
- D. When attacking **Stubborn Dirt or Stains**, allow the cleanser to work for you by allowing it to stand an extra moment or so on the problem area before thoroughly rinsing with clean water.
- E. It is imperative that strong chemicals be rinsed from the surface of any floor as soon as possible.

IV. WAXING AND POLISHING

Key Resin Floors typically need not be waxed or polished, however, should wear areas appear in heavy traffic areas, waxing or polishing with a standard commercial product may enhance the finish. One exception is **Key Epoxy Terrazzo** is polished during the final steps of the installation process.

V. RENEWING AND REFINISHING

Key Resin Floors are designed to withstand heavy wear and tear. However, should visible wear occur in high traffic areas you may wish to restore the floor by resealing it. Before applying any permanent material to the floor:

- A. Remove all wax and other contaminants. A light sanding of the surface is recommended.
- B. Consult your **Key Resin Representative** to determine the appropriate sealer that will be compatible with the existing floor.
- C. Follow the instructions provided by **Key Resin Company** in preparing and re-coating the surface.

VI. CLEANING & MAINTENANCE OF CONDUCTIVE & ELECTRO-STATIC DISSIPATING SYSTEMS

It is especially important to continually maintain conductive and electro-static dissipating flooring systems in a clean, film free condition to maintain the floor's effectiveness. Use of

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harsh detergents that may attack the finish of the floor, or improper rinsing, resulting in residue remaining on the floor, may directly affect the ability of the floor to perform as designed. If hard water is used, a softener may be needed to prevent scum. Conductive and/or ESD floors should never be sealed or waxed, an insulative layer will be formed that will make the surface non-conductive.

Consult your **Key Resin Representative** for special considerations that may apply to your conductive or static-dissipating floor.

VII. TERRAZZO FLOORS

Key Resin Company endorses the care and maintenance procedures recommended by the National Terrazzo and Mosaic Association for the **Key Epoxy Terrazzo System**. Copies of these recommendations are available on request through your **Key Resin Representative**.

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Technical Bulletin #11 Key Flooring Systems Concrete Surface & Environmental Conditions for Installation

The need for good environmental conditions is a often-ignored requirement for polymer flooring applications on concrete floors. These conditions concern the moisture or the movement of moisture, temperature, and humidity in a building.

Our recommendations for concrete preparation are clearly defined in Technical Bulletin #1. The movement of air, humidity, and surface temperature must also be monitored.

I. TEMPERATURE

For best results, the floor temperature should be above 55°F when installing Key Flooring Systems (preferably above 65°F).

II. DEW POINT & HUMIDITY

Dew point is a very important test parameter to watch when installing Key Flooring Systems. In all cases, Key Resin Company recommends the surface temperature should be 5°F above the dew point.

The amount of water vapor that can absorb is limited by the temperature of the air. As the temperature rises, air can hold more water vapor. When air at any temperature has absorbed all the water it can hold, the air is said to be saturated (or at the dew point). As the vapor-laden air moves through the building, it cools. Should it cool sufficiently to reach the dew point, condensation takes place.

When the surface temperature of the concrete floor is less than the dew point, moisture will condense on the surface and, in some cases, be absorbed into the concrete slab. When this happens prior to, during, or up to 72 hours after the application of Key Flooring Systems, the cure of these systems is interrupted causing dull or blushed surface defects and poor adhesion.

When the surface temperature of the concrete substrate is 5°F above the dew point, these problems can be avoided.

The most effective way to ensure proper conditions during the installation of Key Flooring Systems is to install it after the building has been brought to “use conditions of temperature and humidity.” Continuous air movement and good ventilation will also minimize possible condensation in questionable circumstances.

The chart on the following page relates the dew point to relative humidity and temperature. Use this as a guide to determine the best conditions when installing Key Flooring Systems.

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Temperatures (°F) of Dew Points vs. Relative Humidity

	100% RH	15% RH	20% RH	25% RH	30% RH	35% RH	40% RH	45% RH	50% RH	55% RH	60% RH	65% RH	70% RH	75% RH	80% RH	85% RH	90% RH	95% RH	100% RH
40°	5.0	7.5	10.0	12.5	15.0	17.0	19.0	21.5	24.0	26.0	28.0	29.5	31.0	32.5	34.0	35.5	37.0	38.5	40.0
45°	4.0	7.0	10.0	13.5	17.0	19.5	22.0	24.5	27.0	29.5	32.0	34.0	36.0	38.0	40.0	41.5	43.0	44.0	45.0
50°	4.0	8.5	13.0	17.0	21.0	24.0	27.0	29.5	32.0	34.0	36.0	38.0	40.0	42.0	44.0	45.5	47.0	48.5	50.0
55°	8.0	12.5	17.0	21.0	25.0	28.0	31.0	33.5	36.0	38.5	41.0	43.0	45.0	47.0	49.0	50.5	52.0	53.5	55.0
60°	9.0	14.5	20.0	24.5	29.0	32.0	35.0	38.0	41.0	43.0	45.0	47.5	50.0	52.0	54.0	55.5	57.0	58.5	60.0
65°	11.0	17.5	24.0	28.5	33.0	36.5	40.0	43.0	46.0	48.5	51.0	53.0	55.0	57.0	59.0	60.5	62.0	63.5	65.0
70°	13.0	20.5	28.0	32.5	37.0	41.0	45.0	47.5	50.0	52.5	55.0	57.5	60.0	62.0	64.0	65.5	67.0	68.5	70.0
75°	17.0	24.0	31.0	36.5	42.0	45.5	49.0	52.0	55.0	57.5	60.0	62.0	64.0	66.0	68.0	70.0	72.0	73.5	75.0
80°	20.0	27.5	35.0	40.5	46.0	49.5	53.0	56.5	60.0	62.5	65.0	67.0	69.0	71.0	73.0	75.0	77.0	78.5	80.0
85°	24.0	32.0	40.0	45.0	50.0	54.0	58.0	61.0	64.0	66.5	69.0	71.0	74.0	76.0	78.0	80.0	82.0	83.5	85.0
90°	27.0	35.0	43.0	48.5	54.0	58.0	62.0	65.5	69.0	71.5	74.0	75.5	79.0	81.0	83.0	85.0	87.0	88.5	90.0
95°	30.0	39.0	48.0	53.5	59.0	63.0	67.0	70.0	73.0	76.0	79.0	81.5	84.0	86.0	88.0	90.0	92.0	93.5	95.0
100°	34.0	42.5	51.0	56.5	62.0	66.5	71.0	74.5	78.0	80.5	83.0	85.5	88.0	90.5	93.0	95.0	97.0	98.5	100

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