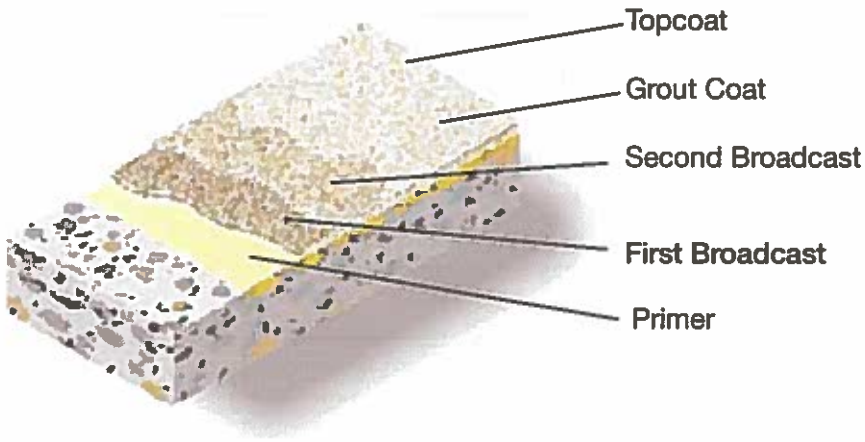
Ceramic Carpet™ #400 Decorative Broadcast

General Polymers CERAMIC CARPET #400 is an 1/8" system which incorporates decorative colored quartz aggregates with high solids epoxy resins and chemical resistant grout and topycoats to form a protective surfacing system which is aesthetically pleasing, slip resistant, durable and resistant to wear, staining and chemicals.

1/8" System



Advantages

- Aesthetically pleasing appearance
- Limitless color options
- Durable, wear and slip resistant
- Chemical and stain resistant
- Fiberglass scrim optional for maximum tensile strength and crack isolation
- Optional waterproofing and/or membrane
- Available with an antimicrobial agent

Uses

- Commercial kitchens (areas where temperature will not exceed 160°F in service)
- Animal Care
- Clean rooms
- Pharmaceuticals
- Locker and restrooms
- Packaging and storage areas

Typical Physical Properties

Color	Pre-Blended Standard Colors Custom Color Blends Available
Hardness @ 24 hours, Shore D ASTM D 2240	70/65
Compressive Strength ASTM C 579	12,000 psi
Tensile Strength ASTM C 307	2,500 psi
Abrasion Resistance ASTM D 4060, CS-17 Wheel, 1,000 cycles	90-100 mgs lost
Flexural Strength ASTM C 580	4,500 psi
Adhesion ACI 503R	300 psi concrete failure
Flammability	Self-Extinguishing over concrete
Resistance to Elevated Temperatures MIL-D-3134J	No slip or flow at required temperature of 158°F
Impact Resistance MIL-D-3134J	Withstands 16 ft lbs without cracking, delamination or chipping

MANDT BANK STADIUM

Installation

General Polymers materials shall only be installed by approved contractors. The following information is to be used as a guideline for the installation of the **CERAMIC CARPET #400 SYSTEM.** Contact the Technical Service Department for assistance prior to application.

Surface Preparation — General

General Polymers systems can be applied to a variety of substrates, if the substrate is properly prepared. Preparation of surfaces other than concrete will depend on the type of substrate, such as wood, concrete block, quarry tile, etc. Should there be any questions regarding a specific substrate or condition, please contact the Technical Service Department prior to starting the project. Refer to Surface Preparation (Form G-1).

Surface Preparation — Concrete

Concrete surfaces shall be abrasive blasted to remove all surface contaminants and laitance. The prepared concrete shall have a surface profile equal to CSP4-6. Refer to Form G-1.

After initial preparation has occurred, inspect the concrete for bug holes, voids, fins and other imperfections. Protrusions shall be ground smooth while voids shall be filled with a system compatible filler. For recommendations, consult the Technical Service Department.

Temperature

Throughout the application process, substrate temperature should be 50°F - 90°F. Substrate temperature must be at least 5°F above the dew point. Applications on concrete substrate should occur while temperature is falling to lessen offgassing. The material should not be applied in direct sunlight, if possible.

Application Information

VOC MIXED		MATERIAL	MIX RATIO	THEORETICAL COVERAGE PER COAT CONCRETE	PACKAGING
<50 g/L	**Primer**	3579	2:1	250 sq. ft. / gal	3 or 15 gals
<50 g/L		3561	4:1	140-145 sq. ft. / gal	1.25-25 gals
0	**1st Broadcast**	5900F	To Excess	.4 lbs / sq. ft.	50 lb. bag
<50 g/L		3561	4:1	65-70 sq. ft. / unit	1.25-25 gals
0	**2nd Broadcast**	5900F	To Excess	.4 lbs / sq. ft.	50 lb. bag
<100 g/L	**Grout Coat**	3745	2:1	100 sq. ft. / gal	1, 5 or 15 gals
<100 g/L	**Topcoat**	3745	2:1	200 sq. ft. / gal	1, 5 or 15 gals

Different optional topcoats - Consult individual Technical Data Sheet for mixing and application instructions.

4408 WB Polyurethane Gloss
3461 AquArmor Gloss Topcoat
4409 WB Polyurethane Satin

Primer

Mixing and Application

1. Add 2 parts 3579 A (resin) to 1 part 3579 B (hardener) by volume. Mix with low speed drill and Jiffy blade for three minutes and until uniform. To insure proper system cure and performance, strictly follow mix ratio recommendations.
2. 3579 may be applied via spray, roller or brush. Apply 5-8 mils, evenly, with no puddles. Coverage will vary depending upon porosity of the substrate and surface texture.
3. Wait until primer is tacky (usually one hour), before applying the slurry. If primer is not going to be topped within open time, broadcast silica sand into resin lightly but uniformly and allow to cure overnight.

First Base Coat (Ceramic Carpet #400)

Mixing and Application

1. Add 4 parts 3561A (resin) to 1 part 3561B (hardener) by volume. Mix with low speed drill and Jiffy blade for three minutes and until uniform.
2. Immediately pour the mixed material onto the substrate and pull out using a 1/4" v-notched squeegee and cross roll with a 3/8" nap roller at a spread rate of 140-145 square feet per gallon.
3. Allow material to self-level 10-15 minutes. Begin evenly seeding the 5900F into wet resin much the same as grass seed is spread. Granules may be spread by hand or mechanical blower but should be broadcast in sucha way that the granules falls lightly into resin without causing the resin to move. Continue broadcasting to excess until the floor appears completely dry.

4. Allow to cure (Cure times vary depending on environmental conditions), sweep off excess granules with a clean, stiff bristled broom. Clean granules can be saved for future use. All imperfections such as high spots should be smoothed before the application of the second broadcast.

Second Broadcast (Ceramic Carpet #400)

Mixing and Application

1. Add 4 parts 3561A (resin) to 1 part 3561B (hardener) by volume. Mix with low speed drill and Jiffy blade for three minutes and until uniform.
2. Immediately pour the mixed material onto the substrate and pull out using a 1/4" v-notched squeegee and cross roll with a 3/8" nap roller at a spread rate of 65-70 square feet per gallon.
3. Allow material to self-level 10-15 minutes. Begin evenly seeding the 5900F into wet resin much the same as grass seed is spread. Granules may be spread by hand or mechanical blower but should be broadcast in such a way that the granules falls lightly into resin without causing the resin to move. Continue broadcasting to excess until the floor appears completely dry.
4. Allow to cure for 24 hours, sweep off excess granules with a clean, stiff bristled broom. Clean granules can be saved for future use. All imperfections such as high spots should be smoothed before the application of the seal coat.

NOTE: 5900F Granule distribution is critical to the success if the application. The decks finished appearance depends on the manner in which the granules have been applied. In grass seed like fashion, allow the granules to fall after being thrown upward and out. **DO NOT THROW DOWNWARD AT A SHARP ANGLE USING FORCE.**

Grout Coat

Mixing and Application

1. Add 2 parts 3745A (resin) to 1 part 3745B (hardener) by volume. Mix with low speed drill and Jiffy blade for three minutes and until uniform. To insure proper system cure and performance, strictly follow mix ratio recommendations.
2. Apply 3745 using a flat trowel or squeegee and backroll with a 1/4" nap roller. Apply at a spread rate of 100 square feet per gallon evenly with no puddles making sure of uniform coverage. Two coats may be required. Take care not to puddle materials and insure even coverage.
3. Allow to cure (Cure times vary depending on environmental conditions).

Topcoat

Mixing and Application

1. Add 2 parts 3745A (resin) to 1 part 3745B (hardener) by volume. Mix with low speed drill and Jiffy blade for three minutes and until uniform. To insure proper system cure and performance, strictly follow mix ratio recommendations.
2. Apply 3745 using a flat trowel or flat squeegee and backroll with a 1/4" nap roller at 200 square foot per gallon evenly with no puddles making sure of uniform coverage. Take care not to puddle materials and insure even coverage.
3. Allow to cure 24 hours minimum before opening to traffic.

Epoxy materials will appear to be cured and "dry to touch" prior to full chemical cross linking. Allow epoxy to cure for 2-3 days prior to exposure to water or other chemicals for best performance.

Different optional topcoats - Consult individual Technical Data Sheet for mixing and application instructions.

4408 WB Polyurethane Gloss
3461 AquArmor Gloss Topcoat
4409 WB Polyurethane Satin

Cleanup

Clean up mixing and application equipment immediately after use. Use toluene or xylene. Observe all fire and health precautions when handling or storing solvents.

Safety

Refer to the MSDS sheet before use. All applicable federal, state, local and particular plant safety guidelines must be followed during the handling and installation and cure of these materials.

Safe and proper disposal of excess materials shall be done in accordance with applicable federal, state, and local codes.

Material Storage

Store materials in a temperature controlled environment (50°F - 90°F) and out of direct sunlight.

Keep resins, hardeners, and solvents separated from each other and away from sources of ignition.

Maintenance

Occasional inspection of the installed material and spot repair can prolong system life. For specific information, contact the Technical Service Department.

Shipping

- Destinations East of the Rocky Mountains are shipped F.O.B. Cincinnati, Ohio.
- Destinations West of the Rocky Mountains are shipped F.O.B. Victorville, California.

For specific information relating to international shipments, contact your local sales representative.

Disclaimer

The information and recommendations set forth in this document are based upon tests conducted by or on behalf of The Sherwin-Williams Company. Such information and recommendations set forth herein are subject to change and pertain to the product(s) offered at the time of publication. Published technical data and instructions are subject to change without notice.

Consult www.generalpolymers.com to obtain the most recent Product Data information and Application instructions.

Warranty

The Sherwin-Williams Company warrants our products to be free of manufacturing defects in accord with applicable Sherwin-Williams quality control procedures. Liability for products proven defective, if any, is limited to replacement of the defective product or the refund of the purchase price paid for the defective product as determined by Sherwin-Williams, NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY SHERWIN-WILLIAMS, EXPRESSED OR IMPLIED, STATUTORY, BY OPERATION OF LAW OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

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To learn more, visit us at

www.sherwin-williams.com/protective
or call 1-800-524-5979
to have a representative contact you.

Iso-Flex® Epoxy 200 Overlay System

PRODUCT DESCRIPTION
Iso-Flex Epoxy 200 Overlay System is a flexible two-component epoxy resin system developed for use on concrete surfaces requiring a traffic bearing surface that is a slip resistant overlay.

BASIC USES
Iso-Flex Epoxy 200 Overlay System is recommended for several basic applications:

- Bridge Decks
- Parking Structures
- Drive Ramps and other surfaces requiring a wear and skid resistant surface.

LIMITATIONS
- Iso-Flex Epoxy 200 Overlay System should be installed above 40°F and below 90°F.
- Apply only to fully cured concrete.

PACKAGING
Available in 10 gallon units or bulk 110 gallon packaging.

STANDARD COLORS
Amber Clear, Mortar Grey, Dark Grey & Black (Special colors available upon request at additional cost)

MIXING INSTRUCTIONS
Parts A and B of the Epoxy 200 resin should be mixed separately before combining. The mix ratio is 1:1 by volume. When combined mix thoroughly with a low speed motor and "Jiffy" paddle. Always scrape the container sides and paddle blades. Do not aerate the mix.

PREPARATION
Shotblasting must be employed to provide a sound, clean substrate. In areas where shotblasting is not feasible, consult the manufacturer for other methods of surface preparation. The substrate must be dry at time of application.

- **Spall Repair:** An Epoxy 200 grout mix can be used to fill spalls before overlay installation. A prime coat of Iso-flex Epoxy 200 should be applied. While still tacky place an aggregate filled Iso-Flex Epoxy 200 mortar and screed or trowel to the desired thickness. Do not over trowel and ensure proper termination and edge details.

TECHNICAL DATA FROM LABORATORY TESTS
(Field Properties May Vary)

Property	Test Method	Test Results
VOC		< 3 g/l
Weight per gallon		8.8 lbs/gal.
Hardness (Shore D)	ASTM D2240	65
Viscosity @ 77°F(24°C)	ASTM D2196 #4 RVT @ 20 rpm	1000-2500 cps
Cure Time @ 75°F(24°C)	ASTM C920	12 hours
Abrasion Resistance	ASTM D4060 Tabor 1000 rev CS17 Wheel, 1000g	Loss 0.06 grams
Weathering Resistance	ASTM G53-83	Yellowing
Tensile Strength	ASTM D412	2800 psi
Ultimate Elongation	ASTM D412	40%
Tear Resistance	ASTM D1004	180 pli
% Yield (Wet→Dry)		99%
Pot Life @ 77°F(25°C)	ASTM C603	30 mins
Shelf Life @ 77°F(25°C)		(2 years in sealed containers)
Chemical Resistance	Unaffected by gasoline, oils and coolants	

ORIOLE PARK
SEATING BOWL

- **INSTALLATION:** Apply the Iso-Flex Epoxy 200 resin over the prepared surface using notched squeegees and rollers. Apply the first Binder Coat as outlined below. Immediatley load to excess with dry silica sand utilizing 12/20 mesh clean, dry aggregate to full saturation. After the binder has cured broom or blow off excess aggregate and apply the second Binder Coat as outlined below. Immediatley load to excess with dry silica sand utilizing 12/20 mesh clean, dry aggregate to full saturation. After the second binder coat has cured, broom or blow off excess aggregate and apply a lockcoat of Iso-Flex Epoxy 200 resin as outlined below.

	Dry Mils	Coverage (SqFt)
Binder Coat 1	12 mils	133
Binder Coat 2	30 mils	53
Seal Coat	20 mils	80
Total System	62 mils	
Sand (12/20 grit)	Approx. 2 lbs/SqFt in both Binder Coats	

PRECAUTIONS

Epoxy systems are skin irritants. Please refer to the Material Safety Data Sheets that accompany each product shipment for proper handling instruction.

MAINTENANCE

Iso-Flex Epoxy 200 Resin will provide a long, effective service life when properly used. Damaged areas may be repaired in the field using methods approved by the manufacturer.

WARRANTY

LymTal warrants that its products are manufactured free of defects and conform to the technical data listed.

Under this warranty we will replace, at no charge, any material proven defective when applied in accordance with our written instructions for applications recommended by us as suitable for subject product. LymTal shall not be liable for any injury, loss or damage, direct or consequential, arising out of the use of the product.

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SEATING BOWL

KEY RESIN COMPANY
4050 Clough Woods Drive
Batavia, Ohio 45103, 888.943.4532

Installation Instructions

Key Lastic SWS Pedestrian Decking

I. GENERAL INFORMATION

Key Lastic SWS Pedestrian Decking is a fluid applied, seamless waterproofing system for concrete floors, decks, overhead walkways, and other exterior surfaces that must remain watertight to moisture intrusion and protect occupied areas beneath. The surface characteristics of **KEY LASTIC SWS Pedestrian Decking** can be varied to accommodate the degree of skid resistance, appearance, and chemical resistance.

II. SURFACE PREPARATION

Surface Preparation is the most critical portion of any successful resinous flooring system application. All substrates must be properly prepared to a minimum surface profile of CSP-3 as outlined in **KEY RESIN COMPANY'S TECHNICAL BULLETIN #1.** Specific attention should be paid to the following:

A. Curing and Finishing Techniques of the Concrete Substrate
B. Age of Concrete
C. Previous Contamination of the Substrate
D. Present Condition of the Substrate

Also, the temperature and humidity conditions of the area to receive the flooring system should be checked. An optimum air temperature of 75°F with a minimum slab temperature of 50°F is required for proper cure of the resin flooring system.

III. MATERIAL QUANTITIES

A. Guideline System Requirements for 1000 ft²

Key Lastic SWS — 50-60 Mil Decking System	*Qty./ 1000 ft²*	*Coverage*
1. *Key #502* Primer/Low Modulus Binder	4 gallons	250 ft²/gallon
2. *Key #400* Urethane Elastomer	20 gallons	50 ft²/gallon
3. *Key #400* Urethane Elastomer	10 gallons	100 ft²/gallon
4. *Key Filler/Broadcast Sand* (30 mesh sand)	450 pounds	
5. *Key #401* Aliphatic Urethane Topcoat	10-12 gallons	80-100 ft²/gallon
6.A *Key #401* Aliphatic Urethane Topcoat (optional)	6-10 gallons	100-160 ft²/gallon

Note: For ramps and other areas subject to severe abrasion and wear, consider installing a double broadcast and/or substituting aluminum oxide aggregate for silica sand.

IV. INSTALLATION

A. Priming

Key Resin Company recommends that every flooring system be installed with a primer to insure maximum adhesion to the prepared substrate. Priming will also help to seal air in the concrete and reduce outgassing and air bubbling in the finished system.

1. Mixing ***Key #502* Primer/Low Modulus Binder**

ORIOLE PARK

a. Thoroughly mix each component prior to combining.
b. Mix two (2) parts by volume of Part A (Resin) with one (1) part by volume of Part B (Hardener) for three minutes with a low speed electric drill mixing paddle.
c. If thinning is desired, add no more than one pint of xylene per gallon of epoxy at time of mixing.
d. ***Do not mix more material than can be immediately poured out in ribbons and spread/backrolled within 40 minutes. Do not leave mixed material in the pail for longer than 5-10 minutes or working time will be significantly reduced!***

2. Application
   a. Pour primer onto the prepared concrete.
   b. Spread with either a flat trowel or squeegee to a coverage of 250 ft² per gallon.
   c. Back roll with a short nap roller. Do not allow the primer to puddle. Primer need only wet the concrete surface.
3. Allow primer to cure 10-12 hours (at 75 degrees F) prior to topcoating. A fast cure formulation is available to reduce re-coat window to 4-8 hours. If primer is to be allowed to sit for longer than 24 hours, broadcast lightly with dry silica sand.

B. Urethane Elastomer Crack Bridging Membrane

1. ***Key #400*** **Urethane Elastomer**
   a. Mix 6.6 parts by volume of Part A with one (1) part by volume of Part B using a low speed drill for 3-5 minutes. It is recommended to mix full units due to unusual mix ratio.
   b. ***Mix only that amount of material that can be used in 30 minutes.***

      If desired, a small amount of xylene may be added to thin the material to increase fluidity.

2. Application
   a. Spread ***Key #400*** at a rate of approximately 50 ft² per gallon.
   b. Gently back roll using a short nap roller.
   c. Allow to cure a minimum of 8-12 hours before applying next coat. If ***Key #400*** sits longer than 24-48 hours before applying topping system, solvent wiping or priming the membrane before application of the topping system may be necessary.

C. Urethane Elastomer Broadcast Coat

1. ***Key #400*** **Urethane Elastomer**
   a. Mix 6.6 parts by volume of Part A with one(1) part by volume of Part B using a low speed drill for 3-5 minutes. It is recommended to mix full units due to unusual mix ratio.
   b. ***Mix only that amount of material that can be used in 30 minutes.***

   If desired, a small amount of xylene may be added to thin the material to increase fluidity.

2. Application
   a. Spread ***Key #400*** at a rate of approximately 100 ft² per gallon.
   b. Gently back roll using a short nap roller.
   c. Allow the material to level for approximately 10 minutes.

Termination points at the end of the day should be made at doorways, expansion joints, etc. If it is not possible to terminate at these points, 2" masking tape should be placed in a straight line at the ending point. Carefully trowel the material up to and slightly over the inside edge of the tape. Allow material to cure for about thirty (30) minutes and remove the tape.

   d. Broadcast 30-mesh silica sand or 24 mesh aluminum oxide into the wet floor system until the surface of the system appears dry. Be careful not to clump the material or produce high-spots. Approximately 4 to 5 pounds of sand will be needed for 10 ft² of flooring. If terminating the system with tape as

described in note above, broadcast sand up to the tape and remove after material cures thirty (30) minutes. ***Remember to only walk on the wet surface while wearing "spiked" shoes!!! Do not walk on floor after broadcasting.***

3. Allow the material to cure overnight. Sweep excess sand with a stiff bristled broom or power vacuum. A light sanding or rubbing with a stone will aid in achieving a uniform "sanded" surface.

D. Sealing with Aliphatic Topcoat

Important: Monitor weather conditions and humidity/dewpoint, it is critical that Key #401 be applied to a dry substrate and not be rained on for a minimum of 24 hours after application, at 75 degrees F. Adjust this time accordingly for cooler or warmer temperatures.

The sealing of a floor should be performed over the entire area receiving the system. The applicator should complete the entire broadcast portion of the application prior to sealing.

1. Stir each container of ***Key #401*** **Aliphatic Topcoat** before use to insure uniformity.
2. Application
   a. Pour material onto floor in a line and spread with a roller or flat squeegee to a coverage of 80-100 ft²/gallon depending on desired finish texture. A second topcoat is optional depending on desired finish texture.
   b. Back roll with a short nap roller to even the surface texture of the coating.
   c. Do not open to light foot traffic for 24 hours, vehicle traffic for 72 hours at 75 degrees F. Full chemical cure and maximum resistance are achieved in five (5) days.

KEY RESIN COMPANY

KEY EPOCON SL

DESCRIPTION

KEY EPOCON SL is a moisture vapor control system utilizing **KEY EPOCOAT** technology, a unique water based epoxy which allows the contractor to install polymer resin floor systems and other moisture sensitive floor coverings on new concrete (5 days old) without fear of moisture entrapment. **KEY EPOCON SL** is applied in a two coat application. **KEY EPOCOAT** is the primer/basecoat used in **KEY EPOCON SL**.

KEY EPOCON SL reduces the passage of water vapor and moisture through slabs on, above or below grade, thus eliminating delamination and blistering of adhesives, floor coverings, resin floor systems, epoxy terrazzo and coatings.

KEY EPOCON SL controls water vapor transmission levels for the installation of most floor covering systems, including VCT, sheet vinyl, carpets, wood, laminates, polymer resin flooring and epoxy terrazzo.

KEY ADVANTAGES

- Low VOC, water-based, meets LEED criteria.
- Moisture vapor and water barrier.
- Unlimited moisture vapor tolerance.
- Compatible with most flooring systems.
- 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.
- Key Epocon SL must be installed exactly as recommended by Key Resin.

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 COMPANY'S TECHNICAL BULLETIN #1.** Shot blasting is the ONLY approved method unless otherwise approved by Key Resin. Create a coarse texture surface profile minimum CSP-3. Prepared substrate must pass water absorption test, contact Key Resin for details. Work must be performed by trained or experienced resin flooring or epoxy terrazzo contractors. Consult with **Key Resin Technical Service** regarding any questions.

INSTALLATION

Mixing: Review detailed KEY EPOCOAT and KEY EPOCON SL Installation Instructions publications. KEY EPOCOAT is a two-component material. Part I and Part II are supplied in the correct mixing ratios. Always mix full or half units in the proportions supplied. Add one (1) part of **EPOCOAT PART I** to four (4) parts **EPOCOAT PART II.** Filler sand must also be added to Body Coat. Thoroughly mix with a low speed drill and Jiffy blade for 3-4 minutes until uniform. Do not entrap excessive air. Scrape all sides and bottom of container to ensure thorough mixing.

Primer: Prime using **EPOCOAT**. Apply to the properly prepared substrate with a squeegee at coverage rate of 160 ft² per gallon and back-roll with short nap roller to achieve uniform coverage. Allow to cure hard enough for light foot traffic, about 3-4 hours at 75°F and 50% RH.

Body Coat: Add ½ gallon of 80-100 mesh sand (Key #730 Filler Sand) to a 1.25 gallon unit **EPOCOAT** during the mixing process, blending thoroughly. Apply mixed slurry with gauge rake or notched trowel at 18 square feet per gallon of slurry to achieve nominal 90 mils. Briefly allow to self-level then promptly back roll with a looped roller or spiny roller. A 1.25 gallon unit mixed with filler sand will cover 22 ft² at 90 mils. Broadcast surface with 30-60 mesh sand to excess (30-50 lbs/100 ft²) to achieve nominal 1/8 inch. Sweep and vacuum excess or loose sand after hardening (16-24 hours, depending on temperature and humidity).

Smooth Finish Option: Sand broadcast procedure may be deleted for certain types of flooring systems if smooth finish is desired, yielding a total system thickness of 90-100 mils.

Top Coating, Overlays: Apply top coatings or resin floor system directly over the Key Epocon SL broadcasted or smooth surface. Prime surface with appropriate Key Resin primer as required. For vinyl flooring and other floor coverings consult with manufacturer of floor covering.

Material	2-component epoxy
Density	12.70 lbs/gallon
VOC Content, Mixed	< 1 g/L
Volume Solids	59%
Flash Point: Part A Part B	>212°F 170 °F
Mixing Ratio	1:4 by Vol.
Pot Life, Approximate	60 minutes @ 75°F (24°C)
Open to Foot Traffic	After 16 hrs. at 73°F (23°C)
Curing Temperature	Minimum 50°F
Full Cure & Max. Resistance	7 days
Hardness, ASTM-D-2240	70-75 Shore D
Compressive Strength ASTM-C- 579	6500 psi
Flexural Strength ASTM-C-580	2100 psi
Adhesion To: -New concrete (5 days) -Moist concrete (28 days) -Dry concrete (28 days)	 110 psi 550 psi 580 psi
Temperature Resistance: a)Continuous: -Dry heat -Humid b)Intermittent: -High pressure water -Dry heat	 140°F (60°C) 113°F (45°C) 185°F (85°C) 149-185°F (65-85°C)

AVAILABILITY

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

COLOR SELECTION

KEY EPOCON SL is available in neutral (off-white). Consult with Key Resin Technical Service on use of recommended pigment packs.

MAINTENANCE

After completing the application of **KEY EPOCON SL** and the topcoats or floor covering system, the installer should provide the owner with maintenance instructions relevant to the specific topcoats or floor covering. 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.

KEY RESIN COMPANY

KEY LASTIC DE

DESCRIPTION

KEY LASTIC DE is a fluid applied, decorative resilient flooring system for concrete floors, school classrooms and cafeterias, and mechanical equipment rooms. The resiliency of **KEY LASTIC DE** provides sound-deadening qualities and cushioning under foot.

KEY LASTIC DE exhibits excellent adhesion and abrasion, impact, and chemical resistance. Elastomeric properties will allow for horizontal movement of up to 1/8" without fracturing **KEY LASTIC DE.**

The surface characteristics of **KEY LASTIC DE** can be varied to accommodate the degree of skid resistance, the decorative appearance, and the chemical resistance.

KEY ADVANTAGES

- Decorative Appearance
- High Wear and Abrasion Resistance
- Low Maintenance
- Safe (non-skid)
- 100% Solids Provides Low Odor Application
- Chemical Resistant Finishes are Available

KEY CONSIDERATIONS

- On or below grade installation must have an efficient vapor barrier under the slab.
- Special treatments are necessary where hydrostatic pressure or moisture vapor transmission may be present.
- 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 and expansion joints in the substrate must be revealed with the appropriate divider strips in the topping.

TYPICAL USES

KEY LASTIC DE, a 1/8" system, is an ideal choice for use in classrooms, shower rooms, cafeterias, mechanical equipment rooms, or light production areas.

SELECTION GUIDE

⇧	Activity Centers	
	Aircraft Hangars	
	Airports	Baggage/Service
		Terminals
⇧	Animal Areas	Housing
⇔		Cage Washing
	Beverage	Processing
		Packaging/Warehousing
		Bottling
⇧	Cafeterias	
	Chemical Processing	
⇧	Clean Rooms	
⇔	Coolers	
	Computer Assembly	
	Commercial Kitchens	
	Containment Areas	
⇧	Convention Centers	
	Correctional Facilities	
⇧	Corridors	
	Docks/Ramps	
⇔	Dairies	
	Distilleries	Packaging
		Bottling
	Food	Processing
		Preparation Service
	Garages	
	Hospitals	Corridors & Lobbies
⇧		Patient Rooms
		Operating Rooms
⇧		Services
⇔	Laboratories	
⇔	Laundries	
⇧	Locker Rooms	
⇔	Machine Shops	
	Manufacturing	Light Duty
		Heavy Duty
	Meat, Fish, Poultry Processing	
⇧	Mechanical Equipment Rooms	
	Munitions Facilities	
	Parking Garages	Interior Decks
		Exterior Decks
⇔	Pharmaceutical Plants	
	Pulp and Paper Processing Facilities	
⇧	Schools	
	Shopping Malls	
⇧	Showers	
	Utilities	
⇧	Warehouses	
	Waste Water Treatment Facilities	

⇧-Excellent Choice ⇔-Alternate Choice

TECHNICAL DATA

System Performance Properties

Flammability ASTM D-635	Self Extinguishing
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 D-2240	50 Shore D
Bond Strength to Concrete ACI COMM #403, Bulletin 59-43	300 psi (100% concrete failure)
Resistance to Elevated Temperature MIL-D-3134F §4.7.4	No slip or flow at required temperature of 158°F
Coefficient of Friction ASTM D-2047	0.60
Water Absorption ASTM D-570	Nil
Thermal Shock Resistance ASTM C-884	Passes
Abrasion Resistance ASTM D-4060	Will vary with finish
Impact Resistance MIL-D-3134F §4.7.3	Withstands 16 ft./lbs. without cracking, delamination, or chipping.
Compressive Strength ASTM C-579, 7 days	7,000 psi
Tensile Strength ASTM C-307	1,200 - 1,500 psi
Thermal Coefficient of Expansion ASTM C-531	12-15 x 10^{-6}

Membrane Performance Properties

Ultimate Tensile Strength ASTM D-638	1,000-1,200 psi
Tensile Elongation ASTM D-638	100%
Hardness ASTM D-2240	80 Shore A

COMPOSITION

100% solids clear epoxy resin with decorative colored quartz aggregates. Urethane and epoxy finish coats provide specific performance characteristics.

COLOR & AVAILABILITY

KEY LASTIC DE is available in a variety of standard blends of colored quartz. Colors will not fade or wear thin.

Key Flooring Systems are available throughout the United States, Canada, and a number of other countries. Contact the **KEY 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.

Installation of **KEY LASTIC DE** involves several steps including priming, applying successive base coats, broadcasting colored quartz, grouting, and sealing. For specific installation guidelines consult **Key Resin Company's Installation Instruction Manual.**

MAINTENANCE

After completing the application of **KEY LASTIC DE**, 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 LASTIC DE 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.

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 REPRESENTATIVES** are available to assist you at any time. CALL (888)943-4532.

KEY RESIN COMPANY
4061 Clough Woods Drive
Batavia, Ohio 45103, 888.943.4532

BASF

We create chemistry

Technical Data Guide

9 | 09 67 23 **Resinous Flooring**

MasterTop® 1841 SRS CF

Methacrylate-based, self-leveling, flexible flooring system with decorative flake broadcast.

FORMERLY DEGAFLEX™ CF

YIELD

Primer: MasterTop SRS 41P with MasterTop SRS 103IN - 100 ft² (9.3 m²)/batch

Self-Leveling Body Coat: MasterTop SRS 40TC – 40 ft² (3.71 m²) batch @ 1/8" (3.2 mm)

Top Coat: MasterTop SRS 71TC 100 ft² (93 m²) / batch

Flake Blend: MasterTop DE 111FK 6.54 ft² / pound (1.34 m²/kg)

All coverage rates are approximate. Coverage rates will vary with the desired texture and porosity of substrate.

PACKAGING

MasterTop SRS 41P: 4.5 gallon (17 L) pail, 49 gallon (185 L) drum

MasterTop SRS 40TC: 4.5 gallon (17 L) pail, 53.5 gallon (202.5 L) drum

MasterTop SRS 71TC: 4.5 gallon (17 L) pail, 47.5 gallon (179.8 L) drum

MasterTop SRS 103IN: 4.5 gallon (17 L) pail

MasterTop SRS 100SL: 40 pound (18.1 kg) bag

MasterTop SRS 100HD / Powder Hardener: 2.5 pound (1.1 kg) bottle, 50 pound box

MasterTop PGM 165 Pigment: 10 pound (4.5 kg) pail

MasterTop DE 111FK Flake Blend: 55 pound (25 kg) box

COLOR

See Performance Flooring Color Guide for pigment and flake blend color offerings.

SHELF LIFE

Resins: 2 years when properly stored

STORAGE

Keep stored in cool, dry environment, and out of direct sunlight.

VOC CONTENT

See MasterTop SRS LEED Letter

DESCRIPTION

MasterTop 1841 SRS CF is a methyl-methacrylate (MMA), self-leveling flexible flooring system for use in areas that require a quick curing, decorative floor. The quick installation process makes this flooring system ideal for research facilities, laboratories, public assembly facilities or office buildings where minimal downtime is required. MasterTop 1841 SRS CF is an impervious, seamless flooring system, where dirt and spills will remain on the surface and are easily removed by most regular cleaning procedures. Additionally, MasterTop 1841 SRS CF is a flexible flooring system able to withstand environments with temperature swings or exterior applications. The unique chemistry of the MasterTop 1841 SRS CF system provides a full cure in one hour or less for each component and provides a permanent chemical bond between each coat.

PRODUCT HIGHLIGHTS

- Fully cures in one hour, reducing downtime for a quick return to service
- Seamless, impervious floor that is easy to sanitize, clean and maintain
- UV resistance providing long term color performance
- Decorative flake broadcast provides an aesthetic texture that hides visible dirt
- Excellent chemical resistance for a wide range of applications
- NSF registered for incidental food contact (R2)
- Flexible flooring system able to withstand temperature swings

APPLICATIONS

- Used to resurface and coat concrete floors
- Use where aesthetics are a concern
- Exterior environments subject to freeze/thaw
- Pharmaceutical processing and research areas
- Over de-glazed quarry tile
- Grocery stores
- Food processing facilities
- Public assembly facilities and stadiums

LOCATION

- Interior flooring applications
- Applications subject to the freeze/thaw from exterior environments.

SUBSTRATE

- Over new or existing concrete surfaces. When applying over other substrates, such as metal or tile, contact BASF Technical Service.

MASTER® BUILDERS SOLUTIONS

ORIOLE PARK

TECHNICAL DATA

TEST DATA

MASTERTOP SRS 41P

PROPERTY	RESULTS	TEST METHODS
Percentage Reactive Resin	100%	
Percentage Solids	100%	
Water Absorption, (%/24 hours)	0.06	ASTM D570
Tensile Strength	3,550 psi (24.5 MPa)	ASTM D638
Elongation @ Break	1.3%	ASTM D638
Tensile Modulus	2.1 x 10^5 psi	ASTM D638
Hardness (Shore D)	75	ASTM D2240
Viscosity	15 – 25 cps	ASTM D2393
Electrical Resistivity	Vol: 2.5 x 10^{15} ohm/cm	ASTM D257
	Surf: 8 x 10^{12} ohm	ASTM D257

MASTERTOP SRS 40TC

PROPERTY	RESULTS	TEST METHODS
Percentage Reactive Resin	100%	
Percentage Solids	100%	
Water Absorption, (%/24 hours)	<0.1%	ASTM D570
Tensile Strength	1,350 psi (9.3 MPa)	ASTM D638
Elongation @ Break	140%	ASTM D638
Hardness (Shore D)	61	ASTM D2240
Viscosity	450 – 550 cps	ASTM D2393

MASTERTOP SRS 71TC

PROPERTY	RESULTS	TEST METHODS
Percentage Reactive Resin	100%	
Percentage Solids	100%	
Water Absorption, (%/24 hours)	0.05	ASTM D570
Tensile Strength	3,555 psi (24.51 MPa)	ASTM D638
Elongation @ Rupture	4%	ASTM D638
Hardness (Shore D)	80	ASTM D2240
Viscosity	45 – 70 cps	ASTM D2393
Taber Abrasion Resistance (mg. Loss, 1000 cycles, CS17 Wheel)	54	ASTM D4060
Electrical Resistivity	Vol: 7.5 x 10^{13} ohm/cm	ASTM D257
	Surf: 6.5 x 10^{12} ohm	ASTM D257

Chemical Resistance: Please refer to BASF Performance Flooring Chemical Resistance Guide

HOW TO APPLY

Every MasterTop SRS flooring system is a multiple component system that utilizes a methyl-methacrylate (MMA) resin. It is critical that the instructions listed in the Safety Data Sheet and on the product label for every component of the system be read, understood and followed. MMA resins are flammable liquids in their uncured state. Smoking, open flames or sparks should not be permitted during the handling of the product. Explosion safe ventilation must be used during the application to minimize vapor collection in the installation area and to improve overall air quality for the crew. All foodstuffs must be removed during installation of the flooring system.

MasterTop SRS flooring systems are installed by approved contracting firms. The following is only a summary of the installation techniques used by SRS MasterTop SRS approved contractors.

SURFACE PREPARATION

1. Floors must be structurally sound and fully cured a minimum of 28 days. Test floor for vapor drive in accordance with ASTM D 4263, ASTM F 2170 or ASTM F 2420.
2. Repair concrete as necessary. If any patching is required, MasterTop 1817 SRS PC should be mixed and placed according to the MasterTop SRS Installation Guide.
3. Use a commercial degreaser to clean floors of oil, grease and other bond-inhibiting materials.
4. Remove curing and parting compounds and other surface hardeners and floor coatings in accordance with manufacturer's instructions.
5. Mechanical surface profiling is the method of surface preparation for both new and existing floors. Mechanically profile the floor to CSP-4 as described by the International Concrete Repair Institute. Do not use acid etching for surface preparation. Do not use any method that will fracture the concrete.
6. Bond tests should be performed once a small area has been mechanically profiled, so any adjustments can be made to the surface preparation process. Bond tests should be repeated every 500 – 1,000 ft² (46.5 - 93 m²). Please refer to Bond Test Instruction Guide for further information.
7. Cracks wider than 1/16" (1.6 mm) should be "chased out" and opened during surface preparation. Any existing joints should be treated according to project specifications. Please refer to Joint Repair Guide for further information.
8. Areas around drains and other floor fixtures need to be ground and/or chipped to a depth between 1/2" – 3/4" (12.7 - 19 mm) and tapered back 3" – 6" (7.6 - 15.2 cm) away from drain (Refer to MasterTop SRS Detail Drawing 3.1).
9. Termination points should be saw cut to a depth of 1/4" (6.4 mm) and tapered back (Refer to MasterTop SRS Detail Drawing 3.2).

MIXING

(Refer to SRS MasterTop SRS Mixing Chart for exact batch sizes and measurements)

MASTERTOP SRS 41P PRIMER
Measure resin and MasterTop SRS 103IN into pail and add proper amount of powder hardener. Mix with drill mixer for 15 – 30 seconds or until the powder hardener is completely dissolved.

MASTERTOP SRS 40TC SL OVERLAY
Measure resin and pigment into a 5 gallon pail. Add 1 bag of MasterTop SRS 100SL powder and mix using a spiral mixing blade for 40 – 50 seconds, until a homogenous mixture is obtained. Add proper amount of powder hardener and mix for an additional 20 seconds.

MASTERTOP SRS 71TC TOP COAT
Measure resin into pail and add proper amount of powder hardener. If desired, you can mix in the proper amount of pigment. Mix with drill mixer for 15 – 30 seconds or until the powder hardener is completely dissolved. NOTE: After mixing, apply immediately. There will be 7 to 15 minutes of working time, dependent on temperature.

APPLICATION

PRIMER
Apply the properly mixed MasterTop SRS 41P resin to the properly repaired concrete or properly prepared aged coating at approximately 100 ft² (9.3 m²) per batch. Allow primer to cure tack-free to an even, satin-like gloss and re-prime any dry spots.

COVE BASE
If a cove base is to be installed, mix and apply according to the SRS MasterTop SRS "Cove Base Application Guide". Install cove base prior to installation of overlay coat.

SCRATCH COAT
Any rough areas or depressions less than 1/4" (6.4 mm) should receive a scratch coat of MasterTop SRS 40TC SL to smooth and level these areas. Any drips or ridges over 1/8" (3.2 mm) should be ground or sanded smooth. Allow to cure.

OVERLAY COAT
Apply the properly mixed MasterTop SRS 40TC SL overlay coat at 40 ft² (3.71 m²) per batch, at 1/8" (3.2 mm) thickness.

AGGREGATE BROADCAST
Immediately following overlay coat installation, broadcast aggregate into wet material. Even broadcast is best achieved by throwing handfuls of broadcast media towards ceiling and letting it "rain down" on surface. Broadcast until no wet spots are apparent on floor. Allow overlay coat material to cure. Remove excess by sweeping with a medium stiff broom. Follow with a thorough vacuum or blow down to remove all remaining excess aggregate.

TOP COAT (1ST COAT)
Apply the properly mixed MasterTop SRS 71TC topcoat at approximately 80 – 100 ft² (7.4 - 9.3 m²) per batch. Allow to cure.

TOP COAT (2ND COAT)
Apply second coat of properly mixed MasterTop SRS 71TC at approximately 100 – 120 ft² (9.3 – 11.1 m²) per batch. Allow to cure.

DRYING TIME
All components of the MasterTop 1841 SRS CF flooring system fully cure within one hour.

CLEAN UP
Clean tools as needed with inhibited MMA, acetone, ethyl acetate or similar solvents. Collect and dispose of all site wastes.

MAINTENANCE
Regular cleaning and maintenance will prolong the life of all polymer flooring systems, enhance their appearance and reduce any tendency to retain dirt. Follow the BASF Performance Flooring Protection and Maintenance Guide to maximize the life of the floor.

FOR BEST PERFORMANCE
- Not for use at application temperatures over 90° F (32° C).
- Not for use in areas exposed to strong solvents (consult BASF Technical Service).
- Install at recommended thickness to ensure proper curing and leveling.
- Topcoat must be back-rolled immediately to ensure uniform finish.
- Each application must be completely cured prior to the next application.
- Protect or remove food items prior to application to avoid any possible contamination.
- Use clean pails when mixing to avoid the possibility of improper curing.
- Proper air flow is critical to curing MMA materials. The use of fans is mandatory where air flow is restricted.
- Apply a bond test every 500 – 1,000 ft^2 prior to floor installation.
- BASF flooring specialists are available to assist you in the selection of the proper flooring system. Call 1-800-243-6739 for in-house and field technical assistance.
- Make certain the most current versions of product data sheet and SDS are being used; visit www.master-builders-solutions.BASF.us to verify the most current versions.
- Proper application is the responsibility of the user. Field visits by BASF personnel are for the purpose of making technical recommendations only and not for supervising or providing quality control on the jobsite.

HEALTH, SAFETY AND ENVIRONMENTAL
Health, Safety and Environmental Read, understand and follow all Safety Data Sheets and product label information for this product prior to use. The SDS can be obtained by visiting www.master-builders-solutions.basf.us, e-mailing your request to basfbscst@basf.com or calling 1(800)433-9517. Use only as directed. **For medical emergencies only, call ChemTrec 1(800)424-9300.**

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