Construction Specification

SECTION 096519 – RESILIENT TILE FLOORING

PART 1 – GENERAL

1. SUBMITTALS
    a. Product Specification
    b. Specification for Adhesive
    c. Floor Layouts
    d. Samples
    e. Schedule
    f. Qualifications for Installer
2. CLOSEOUT SUBMITTALS
    a. Maintenance Instructions
    b. Warranty
3. QUALITY ASSURANCE
    a. Environmental: FloorScore® Certified
    b. Installer Qualifications: Installer who has been trained in the installation of resilient sheet flooring.
    c. Mockups: Install 100 sf of product at designated location for architect review and approval.
4. MATERIAL STORAGE AND HANDLING
    a. Store tiles on a flat surface and squarely on top of one another.
    b. Store away from vents and direct sunlight.
    c. When palletizing, first place a 5/8” or thicker plywood on the pallet. Stack 2 rows high side by side with no airspace between. Then quarter turn for 2 rows side by side. Do not exceed 12 boxes high. If you are stacking pallets, use a 1” thick plywood in between pallets.
    d. Store in protected dry conditions between 65 and 85 degrees.
5. SITE CONDITIONS
    a. The permanent HVAC system must be on for 7 days prior to, during and after installation between 65 and 85 degrees Fahrenheit or 18 to 29 degrees Celsius.
    b. Material and adhesive must be acclimated to the installation area for a minimum of 48 hours prior to installation.

PART 2 – PRODUCTS

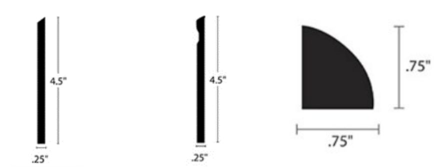
6. TESTING REQUIREMENTS
    a. Slip Resistance ASTM D2047: ADA Compliant
    b. Static Load Limit ASTM F970: 1500 psi
    c. Residual Indentation F1914: passes , 8%
    d. Flexibility ASTM F137: Passes
    e. Resistance to Heat ASTM F1514: Passes
    f. Resistance to Light ASTM F1515: Passes
    g. Resistance to Chemicals ASTM F925: Passes
    h. Radiant Flux ASTM E648: / 0.45 W/sq. cm., Class I

   i. Smoke Density ASTM E662: Passes, <450

7. RESILIENT TILE
   a. Manufacturer: Patcraft
   b. Product: CROSSOVER LL, I439V
   c. Construction:
   d. Class ASTM F1700: ASTM F1700 Class III printed film vinyl plank Type B (embossed)
   e. Wear-layer Thickness: 20 mil
   f. Overall Thickness: 0.197 inches (5 mm)
   g. Nominal Dimensions: 0 x 0
   h. Finish: ExoGuard™
   i. Backing Class:
   j. Installation: DIRECT GLUE/FLOAT/PERIMETER GLUE
8. INSTALLATION MATERIALS
   a. Adhesives:

i.	Shaw 4100 spreadable	95% RH	8 lbs	pH 10
ii.	S150 spray	95% RH	NA	pH 11
iii.	Shaw 4151 for high moisture	99% RH	10 lbs.	pH 12
iv.	Shaw 200 for low demand areas	85% RH	5 lbs	pH 5-9

   b. Weld Rod
      i. Heat
      ii. Chemical
   c. Primer: Shaw 9050
   d. Leveling and Patching Compounds: Use only Portland-based patching and leveling compounds. Do not install resilient flooring over gypsum-based patching and/or leveling compounds.
   e. Take Abatement Coating: Shaw 6200
   f. Barrier Coat Floor Encapsulation: Shaw 9000
   g. Cove Base Accessories:
      i. Angle Profile
      ii. Detail Profile
      iii. Quarter Round



Profile

   h. Floor Polish

PART 3 – EXECUTION

9. EXAMINATION
   a. Examine substrates, with Installer present, for compliance with requirements for maximum moisture content, pH, smoothness and level.
   b. Proceed with installation after any unsatisfactory conditions have been corrected.
10. PREPARATION
   a. Concrete substrates should be tested for Internal Relative Humidity according to ASTM F 2170 and must not exceed 90% RH.
   b. The PH of the concrete sub-floor must be between 7 and 10.

c. Substrates shall be smooth, structurally sound, permanently dry, clean and free of all foreign material such as dust, wax, solvents, paint, grease, oils, old adhesive residue, curing and hardening/ curing compounds, sealers and other foreign material that might prevent adhesive bond.
d. Concrete floors shall be flat and smooth within 1/8” in 6 feet or 3/16” in 10 feet.

11. INSTALLATION
    a. LAYOUT AND INSTALLATION
    b. Install using conventional tile and plank installation techniques. Plank products should have a minimum of 6 to 8” seam stagger.
    c. Center rooms and hallways so borders are not less than half of a tile or plank.
    d. Work out of multiple boxes at the same time.
    e. In hallways and small spaces, work lengthwise from one end.
    f. Ensure cut edges are always against the wall.
    g. To cut products, score the top side of the material with a utility knife. Bend the product and finish the cut through the back side. It may be necessary to use a heat gun to cut around vertical obstructions. Allow the heated product to return to room temperature before installation.
    h. If you cut the product into a fine point, it may delaminate. Use an ethyl cyanoacrylate-based super glue to fuse the points together. Clean all glue from the top surface immediately. Alcohol-based super glues may cause the vinyl to swell.
    i. Roll the plank or tile with a 3-section 100 lb. roller. Re-roll the floor within the working time of the adhesive. Continue to roll the floor throughout the working day to ensure a proper bond.
    j. Use floor protection after installation. DO NOT use a plastic adhesive-based protection system.
12. MAINTENANCE
    a. Initial Maintenance
        i. Sweep, vacuum or dust mop to remove dirt and grit.
        ii. If needed, add neutral cleaner to cool water following the manufacturer’s instructions.
        iii. Scrub with a low-rpm machine or auto scrubber. Use a red pad or brush.
        iv. Never use brown or black pads (too aggressive and can damage the product)
        v. Remove the cleaning solution with a wet-dry vacuum or auto scrubber until the floor is dry.
        vi. Rinse the floor with clean water. Repeat the rinse process if necessary to remove all haze.
    b. Routine Maintenance
        i. Sweep, vacuum or dust mop to remove dirt and grit.
        ii. Add neutral pH cleaner to cool water following the manufacturer’s instructions.

iii. As needed, scrub with a low-rpm machine or auto scrubber to retain appearance. Use a red (light scrubbing) pad and neutral cleaner following the manufacturer's instructions.

c. Preventative Floor Care
   i. Use walk-off mats that are as wide as the doorway and long enough for soil load and weather conditions.
   ii. Use mats with a non-staining backing.
   iii. Floor protectors should be used on all furniture legs.
   iv. The surface area of the floor protectors should be no less than 1" in diameter.

d. Full maintenance instructions will be provided by the manufacturer.

END OF SECTION 096519

Updated 6/28/18 JR

Construction Specification

SECTION 096813 – TILE CARPETING

PART 1 – GENERAL

1. RELATED DOCUMENTS
    a. Division 01 Specification Sections
2. SUMMARY
    a. This section relates to carpet tile.
3. PREINSTALLATION MEETINGS
    a. Conducted at (insert time, location and key contact).
4. SUBMITTALS
    a. Product Specification
    b. Specification for Adhesive
    c. Shop Drawings
    d. Samples
    e. Schedule
    f. Qualifications for Installer
5. CLOSEOUT SUBMITTALS
    a. Maintenance Instructions
    b. Warranty Documents
6. QUALITY ASSURANCE
    a. Environmental:
        i. Green Label Plus Certified
        ii. Cradle to Cradle Certified Gold
        iii. NSF 140 Gold
        iv. Health Product Declaration
        v. Declare Label, red list compliant
        vi. No PVC components
    b. Installer Qualifications: Installer who has been trained in the installation of carpet tile.
    c. Manufacturer Qualifications
        i. ISO 1400l
        ii. ISO 9001
        iii. Reclamation Program: Will recycle EcoWorx carpet tile free of charge for quantities of 500 SY (418 SM) or more within continental United States and Canada or 5000 SY (4180 SM) globally.
    d. Mockups at designated location for architect review and approval.
7. MATERIAL STORAGE AND HANDLING
    a. Store rolls on a flat surface, away from vents and direct sunlight.
    b. Store in protected dry conditions between 65 and 85 degrees.
8. SITE CONDITIONS
    The following conditions must be maintained for 24 hours prior to, during and permanently after installation:
    a. HVAC System must be operational.
    b. The installation site, carpet and adhesive must be between 50°F and 95°F.

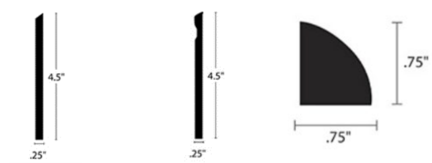
c. The installation site's ambient relative humidity must not fall below 40%.
d. Conduct relative humidity or Anhydrous Calcium Chloride testing. Results must be within the proper range for Shaw 5000 adhesive:
    i. Calcium Chloride ASTM F-1869 5.0 lbs per 1000 SF /24 hours
    ii. Relative Humidity ASTM F-2170 85%
    iii. EcoLogix ES does not require moisture or pH testing.
e. Conduct pH testing on the floor in several locations. A reading below 5.0 or above 9.0 requires corrective measures.

PART 2 – PRODUCTS

9. TESTING REQUIREMENTS
    a. Pill Test CPSC FF 1 70: Pass
    b. Radiant Panel ASTM E648: Class I
    c. NBS smoke ASTM E662 NF: <450
    d. Static AATCC 134: <3.5 kv
    e. Coefficient of Friction: 0.6 (Meets ADA requirements)
10. TILE CARPETING
    a. Manufacturer: Patcraft
    b. Product: Transverse, I0520
    c. Construction: Multi-Level Pattern Loop
    d. Fiber: Eco Solution Q® Nylon
    e. Dye Method: 100% Solution Dyed
    f. Backing: EcoWorx® Tile
    g. Protective Treatment: SSP® Shaw Soil Protection
    h. Size: 24 inches x 24 inches
    i. Gauge: 1/10 inches
    j. Stitches: 10 per inches
    k. Finished Pile Thickness: 0.068 inches
    l. Average Density: 8471 oz/yd³
    m. Total Thickness: 0.216 inches
    n. Tufted Weight:
11. INSTALLATION MATERIALS
    a. Adhesives:
        i. For EcoWorx (fiberglass reinforced):
            1. Shaw 5000 pressure sensitive: 5 lbs. 85% RH pH 5-9
            2. Shaw 5100 pressure sensitive: 5 lbs. 85% RH pH 5-9
            3. Shaw 5036 with antimicrobial: 5 lbs. 85% RH pH 5-9
            4. Shaw 5800 for high moisture: 10 lbs. 95% RH pH 10
            5. Shaw 3800 indoor/outdoor 8 lbs. 90% RH pH 5-9
            6. LokDots dry adhesive: No visible moisture pH 12
            7. LokWorx tabs: 10 lbs. 85 RH pH 12
            8. Mill-applied ES: No visible moisture

ii. For EcoLogix (attached cushion): All, excluding LokDots and LokWorx.
iii. For StrataWorx (light weight tile alternative to broadloom)
1. Shaw 5000 pressure sensitive: 5 lbs. 85% RH pH 5-9
2. Shaw 5036 with antimicrobial: 5 lbs. 85% RH pH 5-9
3. Shaw 5800 for high moisture: 10 lbs. 95% RH pH 10

b. Primer (if needed): 9050 is an acrylic solution made to neutralize excess alkali that is also recommend as a primer coat to prevent over absorption of adhesive and to ensure a better bond. Formulated with an antimicrobial agent, it provides protection against bacteria, fungi, and mildew in the wet or dry state. Contains no solvent, alcohol, or other hazardous materials per OSHA 29 CFR 1910.1200. Non-photo chemically reactive per rule #102. Available in 4-gallon pails.
c. Leveling and Patching Compounds: Use a cementitious patching/leveling compound that meets or exceeds the required moisture level and pH requirements. Use of gypsum-based patching and/or leveling compounds which contain Portland or high alumina cement and meet or exceed the compressive strength of 3,000 psi are acceptable.
d. Transition Strips
e. Cove Base Accessories:
i. Angle Profile
ii. Detail Profile
iii. Quarter Round Profile



PART 3 – EXECUTION

12. EXAMINATION
a. Examine substrates, with Installer present, for compliance with requirements for maximum moisture content, pH, smoothness and level.
b. If dusting or powdering exists, seal the floor with a latex primer such as Shaw 9050.

13. PREPARATION
a. Substrates shall be smooth, structurally sound, permanently dry, clean and free of all foreign material such as dust, wax, solvents, paint, grease, oils, old adhesive residue, curing and hardening/ curing compounds, sealers and other foreign material that might prevent adhesive bond.
b. Pre-existing Adhesive
i. Non-Active Multipurpose Adhesive: Remove ridges, sweep or vacuum debris.
ii. Active Multipurpose Adhesive: Remove ridges then eliminate the adhesive tack with a product such as Shaw 6200.
iii. Pressure Sensitive Adhesive Affected by Plasticizer Migration: If the previous carpet tile had a PVC backing and the plasticizer in the backing

has transferred to the adhesive, you must thoroughly remove adhesive by wet scrapping.

iv. Existing Pressure Sensitive Adhesive: Evaluate the tack level of the existing adhesive. If sufficient, the existing adhesive can be used to install Shaw's tile products. If insufficient, apply new adhesive over existing adhesive.

v. Active Cutback Adhesive: Wet scrape adhesive, reduce to a well-bonded residue and encapsulate with a product such as Shaw 9000.

vi. Non-active Cutback Adhesive: Wet scrape adhesive and reduce to a well-bonded residue.

c. Fill depressions or cracks with a cementitious patching/leveling compound that meets or exceeds the required moisture level and pH requirements. Use of gypsum-based patching and/or leveling compounds which contain Portland or high alumina cement and meet or exceed the compressive strength of 3,000 psi are acceptable.

d. Flooring considerations:

i. Installing over VCT and VAT: Tiles must be secure to the subfloor. Strip any wax from the surface.

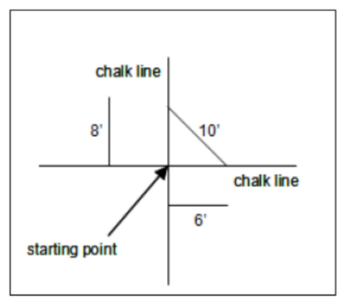
ii. Installing over wood subfloors: Prime with a liquid latex such as Shaw 9050.

iii. Installing over raised access flooring: Must be smooth, level, secure and clean. Install carpet tile at an offset from panel seams. Gaps must not exceed 1/16" (1.6 mm).

14. LAYOUT AND INSTALLATION

a. Start the tile installation as near to the center of the room as possible and position it to use the largest perimeter cut tile size.

b. Snap a chalk line parallel to one major wall bisecting the starting point. It may be necessary to offset the center chalk line to assure perimeter tiles will be at least half size.

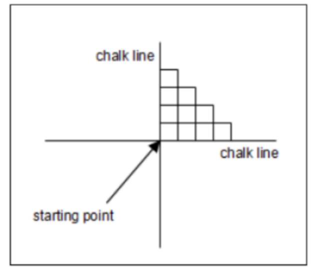


c. Snap a second chalk line from the starting point at 90° to the first line. Use a 3-4-5, 6-8-10, or larger triangle depending on the room size. Meters or feet may be used to lay out the triangle in these proportions.

d. Use a full spread of adhesive applied with a 3/8" foam paint roller or 1/16 x 1/32 x 5/64 u-notch trowel. The adhesive must be allowed to dry completely before installing the carpet. Installing into wet adhesive will result into a permanent bond and may cause the carpet to bubble. Trowel application of adhesive is recommended for EcoLogix. EcoWorx ES / EcoLogix ES no adhesive required. Approximate coverage rates are 35-40 yards per gallon when applied with a roller, and 28 -33* yards per gallon when applied with a trowel.

e. Install each full carton and complete an entire pallet before starting another pallet to minimize product variation. Each tile has directional arrows on the back. These arrows allow for one-directional or multi-directional installation. Some styles may be large scale or linear in design and require quarter turning. If you are unsure about whether or not your product requires a quarter turned installation, please contact 1.877.502.7429. Numbers within the arrows are for manufacturing purposes and are not related to installation.

f. Begin installation at the intersection of two chalk lines. Continue until you complete one quadrant. Proceed to an adjoining quadrant until all four quadrants are completed. Larger areas may require chalk lines bisecting the original four quadrants.



g. Install tiles using the pyramid technique. This gives you multiple alignment checks. If the edges do not align and the misalignment increases with progression of the installation, find and correct the source of the problem.
h. Carpet tiles come in various sizes. All Shaw tiles have directional arrows on the back of the tile. Slide tiles into position to prevent yarn from being trapped between the tiles. Trapped yarn will adversely affect the appearance of the installation and will cause alignment problems.
i. EcoWorx ES /EcoLogix ES are manufactured with the adhesive already applied. Once the tile is ready to install, simply peel the liner from the back and position snugly to the adjacent tile.
j. Tiles must fit snugly, but not be compressed. Press the entire surface of the tile to ensure adhesion. Check for fit by measuring the length of ten full tiles after installation. The measurement must not be less than, or exceed by more than 1/4 inch, the length of the tiles being multiplied by ten. For example: if 24" X 24" tiles are being installed, the measurement should be between 240 and 240 1/4 inches.
k. Measure and cut tiles from the back using a straight edge. Be sure the arrows are pointing in the correct direction.
l. Roll the entire installation with a 75 lb. or greater roller to assure the proper adhesion to the substrate.

15. MAINTENANCE
    a. Post-installation Care
        i. Place plywood over the carpet when heavy objects will be moved within 24 hours after installation.
    b. Preventative Floor Care
        i. Use protective chair mats under chairs with casters.
        ii. Use soil removal mats at exterior entrances.
        iii. Use absorbent mats in areas where moisture, oil and grease are present.
    c. Routine Maintenance
        i. Set a schedule depending on traffic and vacuum regularly.
        ii. Remove spots with spot removers as soon as they occur.
        iii. Use encapsulation agents periodically.
        iv. Clean with hot water extraction periodically.

Traffic Level	Vacuum	Spot Removal	Interim Cleaning	Hot Water Extraction

Light	2/week	As needed	As needed	1/year
Moderate	1/day	As needed	As needed	1/year
Heavy	1/day	As needed	Monthly	4/year
Extra Heavy	1/day	As needed	Weekly	Monthly

END OF SECTION 096813

LIFE SPECIALTY COATINGS

Thin Film Epoxy

100% Solids - Resinous Floors

Specification Guide

Standard 2:1 Epoxy

Description

Life Deck epoxy interior floor system is a 2 component, pigmented, low odor, low viscosity 100% solids cyclo-aliphatic for use in areas that require chemical resistancy and strong durability.

Uses & Recommended Surfaces

For interior use only unless protected by another product with a UV inhibitor such as our aliphatic urethane. Uses include industrial floors in factories, restaurant kitchens, schools, hospitals, food processing, garage floors, dairies and warehouses.

- Interior Concrete Floors
- Industrial Floors
- Garages
- Showrooms
- Warehouses
- Kitchens
- Restaurants

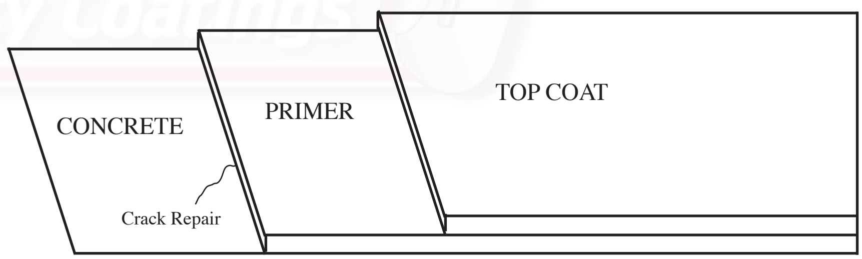
Features

- Low Odor
- USDA Compliant
- Fast Drying
- Epoxy Toughness
- Superior Flow
- Excellent Adhesion
- Excellent Chemical and Solvent Resistance

Products

100% Solids Pigmented Epoxy.
- Primer- 200-300 square feet per gallon
- Top Coat- 200-300 square feet per gallon

LD7200 100% Solids
- Crack Filler/Patching



Physical Properties & Chemical Test Data

Gel Time (100g mass/mins.) -------38 (average)
Tensile Strength* (psi) --------------7400
Tensile Elongation % ----------------4.9
Heat Deflection Temperature C* --47
Shore D Hardness* -------------------87
Barcol Hardness* --------------------74
Bond Strength psi --------------------1200
(mild steel to mild steel)
Thin Film Set Times, hrs.(70 ^{o}F) --4.5
Flexural Strength (psi) --------------5350
* Properties determined after 7 days cure at 77^{O} F

10% Acetic Acid-----------Moderate Effect
Toluene----------------------Slight Effect
Xylene-----------------------Slight Effect
Ethanol----------------------Slight Effect
Skydrol----------------------Slight Effect
70% Sulfuric Acid---------No Effect
Bleach-----------------------No Effect

Thin Film Epoxy

100% Solids - Resinous Floors

Specification Guide

Standard 2:1 Epoxy

Inspection

- Surface must be structurally sound, dry and free of oil, grease, curing agents, dirt, dust or other foreign material that may prevent proper adhesion. Surface must be porous and profiled (See *Preparation* section.) The concrete should be at least 2500 psi and feel like 30-grit sandpaper. The concrete should be porous and be able to absorb water. A minimum of 28 days cured is required on all concrete. Relative humidity in the concrete floor slab should be below 80% (per ASTM F-2170).
- Before starting flooring work, test existing concrete slab to make sure there is no efflorescence, moisture and/or high levels of alkalinity.
- Calcium chloride tests should be conducted to determine if the concrete is sufficiently dry for an epoxy flooring installation in accordance with the latest edition of ASTM F 1869, ***Standard Test Method for Measuring Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride.***
- Failing to adhere to these strict guidelines can result in product delamination, discoloration, blistering, or all together failure of the coating system. Testing is the responsibility of the applicator. Life Paint bears no responsibility for failures due to any of the above conditions.

Surface Preparation

Cleaning

Clean surface entirely with TSP and rinse completely with water several times. Remove mildew or algae using 50/50 blend of household bleach and water. (Do not allow bleach to come into contact with acid). Read bleach instructions and warnings carefully before using. Rinse thoroughly and allow to completely dry.

Crack Preparation

Use a concrete diamond blade to cut out all cracks and joints to 1/4 inch width and 1/4 inch depth. Clean joints thoroughly and remove all concrete dust and debris.

Etching

- Clean surface entirely with TSP and rinse completely with water several times. Remove mildew or algae using 50/50 blend of household bleach and water. (Do not allow bleach to come into contact with acid). Read bleach instructions and warnings carefully before using. Rinse thoroughly. The surface must be porous enough to allow the product to soak in. Surface should feel like 30 grit sand paper.
- Prepare surface by either shotblasting, grinding, Liquid Grind™ (approved liquid etch) or, if a previous coating is currently installed, sanding. Prepare concrete profile equal to CSP 2-3 as specified by ICRI (International Concrete Repair Institute. When using a mechanical method, be sure not to be too aggressive leaving behind grind marks or grinding it to a smooth surface.

Crack Fill/Patching Installation

Using LD7200 Crack Patch, mix paste by equal volume 1:1. LD7200 is mixed thoroughly when combined product is completely gray. Apply to crack, joint, or spalled area using a putty knife or trowel, completely filling the space, scraping off extra LD7200 to leave a uniform, level finish. When dry, sand or grind smooth if overfilled. Surface will be ready to prime in 4-6 hours.

LIFE
SPECIALTY COATINGS

Thin Film Epoxy

100% Solids - Resinous Floors

Specification Guide

Standard 2:1 Epoxy

Note

■ *When working with epoxies, subsequent coats, or recoats, must be completed before 48 hours after the previous application. If not, sanding of the cured application is recommended to ensure subsequent coat adhesion.*

Primer

In a clean and dry bucket, thoroughly mix two parts A with one part B of LD 12 Series epoxy together by volume. Combine using an agitator, jiffy mixer or stir stick. Mix for at least 2 minutes or until completely combined, scraping the sides and bottom of mixing bucket. Only prepare the amount you can use in 25 minutes or less (larger batches than 1.5 gallons may short pot life.) The primer is ready to be applied by brush, roller, or squeegee. If using a squeegee, be sure to back roll for uniform coverage. Coverage should be approximately 200-300 sq. ft. per gallon.

Top Coat

In a clean and dry bucket, thoroughly mix two parts A with one part B of LD 33 Series epoxy together by volume. Combine using an agitator, jiffy mixer or stir stick. Mix for at least 2 minutes or until completely combined, scraping the sides and bottom of mixing bucket. Only prepare the amount you can use in 25 minutes or less (larger batches than 1.5 gallons may short pot life.) The top coat is ready to be applied by brush, roller, or squeegee. If using a squeegee, be sure to back roll for uniform coverage. Coverage should be approximately 200-300 sq. ft. per gallon.

Thinning

100% Solids epoxy may be thinned up to 1 quart of a solvent such as acetone or xylene for ease of application.

Optional Materials

For a faster dry time of the Top Coat, the LD 31 Series can be used in direct replacement of the LD 33 Series.

Additional Top Coats

■ 31-96 Clear water based epoxy. Adds extra durability and protection to final color coat.
■ LD2003 CRU Chemical Resistant Urethane. Adds superior chemical resistance, abrasion tol erance, scratch resistance, UV portection and damage protection to the final color coat. Available in gloss (LD2003) or satin (LD2004).
■ LD2009 Polyurea. Adds chemical and abrasion resistance, protects final color coat from damage and UV resistance. Available in a 2 hour (LD2009), 4 hour (LD9750), or 12 hour (9790) dry time.

Anti-Slip

■ Safe T Grip. Adds a soft, light texture to help prevent slip. (3 oz by weight per gallon.)
■ E263. Adds a more aggresive texture to help prevent slip even while wet. (1 pound by weight per gallon.)
■ While mixing components A & B of the final coat, add anti-slip aggregate by mixing the appropriate amount.

Thin Film Epoxy

100% Solids - Resinous Floors

Specification Guide

Standard 2:1 Epoxy

Note

- *Please refer to individual product technical sheets for more detailed product information on all products within this specification.*

Clean Up

Uncured material can be removed with a solvent. Cured material can only be removed mechanically.

Limitations

- Temperature/Weather: Do not install if the temperature is below 55 degrees.
- Water will ruin uncured products. If inclement weather threatens, cover area to protect new application.
- Do not allow any product to FREEZE while in container.

Maintenance

Floors should be inspected during use for inconsequental damage and wear. Damage areas should be remediated as soon as possible to prevent further damage to the area(s). To repair, remove any loose coating and refer to this specification; repeat process in affected area.
Clean daily using a dry soft bristled broom, dry mop, or wet mop with a floor/tile cleaner, to retain the epoxy looking new.

Health, Protection and Safety

Refer to individual product container labels, individual product technical data sheets, and SDS for health, protection, and safety precautions.

Warranty

When the warranted product is applied in accordance with this specification guide, label instructions and common sense widely accepted painting practice and procedures, Life Paint will warrant said product against manufacturing defects that might cause premature failure such as blistering, peeling, or unusual wear. Directions are as complete as possible but cannot encompass all conditions, applications, and/or surfaces beyond manufacturer's control. In the event of a warranted failure and upon the presentation of proof of purchase, the remedy will be the provision price for said product. This warranty does not include labor or the costs associated with labor. This warranty may not be transferred or assigned and extends specific legal rights which may vary from state-to-state. No other warrantee is expressed or implied. Life Paint Company, Santa Fe Springs, CA (562)944-6391.

LIFE SPECIALTY COATINGS

Metallic Epoxy Floor — Specification Guide

Metallic Finish - Resinous Floors

100% Solids Epoxies

Description

Life Deck's Metallic Epoxy Floor System is a high build, seamless floor finish for use indoors over existing concrete. The system is a 3+ step process depending on desired effect and required protection. The system consists of one coat of 100% Solids Epoxy Primer with Metallic Pigment, one coat of a Metallic Pigmented 100% Solids Cycloaliphatic Epoxy, one clear coat of a 100% Solids Cycloaliphatic Epoxy, with an optional coat of LD 2003 Chemical Resistant Urethane for a high-gloss, protective Topcoat.

There are many different product and finish options for metallic finished floors. This specification guide is instructions to a very simple metallic system. Multiple metallic coats can be used for different effects such as multiple colors, drizzle (or vein) effects, water base epoxy primer, and/or using a pigmented primer. These different options produce different effects and finishes. To inquire more about the different effects and options, please call us at (800) 400-0516 for guidance.

Uses & Recommended Surfaces

For interior use only unless protected by another product with a UV inhibitor such as our aliphatic urethane. Uses include industrial floors in factories, schools, hospitals, garage floors, and warehouses.

- Interior Concrete Floors
- Industrial Floors
- Garages
- Showrooms
- Warehouses
- Restaurants

Features

- Fast Dry
- USDA Compliant
- Can Be Non-Slip
- UV Resistant
- Decorative
- Excellent Adhesion
- Excellent Chemical and Solvent Resistance

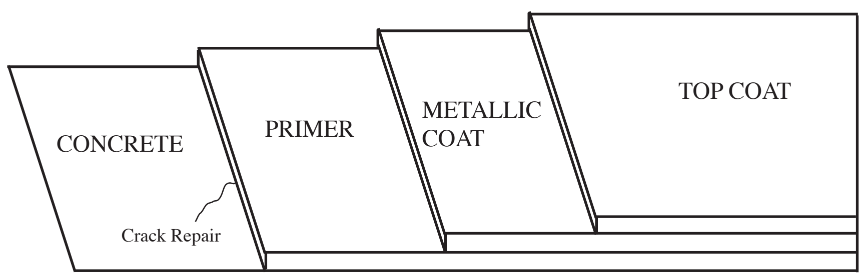
Products

LD12 100% Solids Clear Epoxy.
- Primer- 200-300 square feet per gallon

LD31-96 100% Solids Clear Epoxy
- Metallic Coats- 100 square feet per gallon
- Top Coat- 150 square feet per gallon

LD7200 100% Solids
- Crack Filler/Patching

LD40 Metallic Powders



Inspection

- Surface must be structurally sound, dry and free of oil, grease, curing agents, dirt, dust or other foreign material that may prevent proper adhesion. Surface must be porous and profiled (See *Preparation* section.) The concrete should be at least 2500 psi and feel like 30-grit sandpaper. The concrete should be porous and be able to absorb water. A minimum of 28 days cured is required on all concrete. Relative humidity in the concrete floor slab should be below 80% (per ASTM F-2170).
- Before starting flooring work, test existing concrete slab to make sure there is no efflorescence, moisture and/or high levels of alkalinity.
- Calcium chloride tests should be conducted to determine if the concrete is sufficiently dry for an epoxy flooring installation in accordance with the latest edition of ASTM F 1869, ***Standard Test Method for Measuring Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride.***
- Failing to adhere to these strict guidelines can result in product delamination, discoloration, blistering, or all together failure of the coating system. Testing is the responsibility of the applicator. Life Paint bears no responsibility for failures due to any of the above conditions.

Surface Preparation

Cleaning

Clean surface entirely with TSP and rinse completely with water several times. Remove mildew or algae using 50/50 blend of household bleach and water. (Do not allow bleach to come into contact with acid). Read bleach instructions and warnings carefully before using. Rinse thoroughly and allow to completely dry.

Crack Preparation

Use a concrete diamond blade to cut out all cracks and joints to 1/4 inch width and 1/4 inch depth. Clean joints thoroughly and remove all concrete dust and debris.

Etching

- Clean surface entirely with TSP and rinse completely with water several times. Remove mildew or algae using 50/50 blend of household bleach and water. (Do not allow bleach to come into contact with acid). Read bleach instructions and warnings carefully before using. Rinse thoroughly. The surface must be porous enough to allow the product to soak in. Surface should feel like 30 grit sand paper.
- Prepare surface by either shotblasting, grinding, Liquid Grind™ (approved liquid etch) or, if a previous coating is currently installed, sanding. Prepare concrete profile equal to CSP 2-3 as specified by ICRI (International Concrete Repair Institute. When using a mechanical method, be sure not to be too aggressive leaving behind grind marks or grinding it to a smooth surface.

Crack Fill/Patching Installation

Using LD7200 Crack Patch, mix paste by equal volume 1:1. LD7200 is mixed thoroughly when combined product is completely gray. Apply to crack, joint, or spalled area using a putty knife or trowel, completely filling the space, scraping off extra LD7200 to leave a uniform, level finish. When dry, sand or grind smooth if overfilled. Surface will be ready to prime in 4-6 hours.

Note

▪ *When working with epoxies, subsequent coats, or recoats, must be completed before 48 hours after the previous application. If not, sanding of the cured application is recommended to ensure subsequent coat adhesion.*

Primer/Metallic Coat

LD40 Metallic pigment sold separately from the epoxy. Each jar of LD40 is specifically measured to mix into a 1.5 gallon kit of LD12 Epoxy. Metallic colors can be mixed and used in a variety of creative ways. For more information, please contact your Life Specialty Coatings Sales Rep.

In a clean mixing container, add entire contents of 1 jar of LD40 Metallic Pigment and 1 gallon of Part A Resin and drill mix together to prevent any potential clumping of pigment. Once thoroughly mixed, add ½ gallon of Part B Hardener and mix thoroughly for 2-3 minutes with a low speed (400-600 rpm) drill motor/jiffy mixer. Make sure to scrape the sides and bottom of the container during mixing.

Apply with a stiff squeegee or notched trowel and backroll using a 3/8" non-shedding nap roller. Always backroll the product using the "crossrolling" technique. 1 gallon should cover approx. 150 sq. ft. (1.5 gal kit covers 225 sq. ft.)

You may re-coat as soon as the surface is dry to touch or in about 12 hours. If 48 hours (recoat window) has been exceeded, lightly sand the surface and wipe with acetone before next application.

Metallic Coat

In a clean mixing container, add entire contents of 1 jar of LD40 Metallic Pigment and 1 gallon of Part A Resin and drill mix together to prevent any potential clumping of pigment. Once thoroughly mixed, add ½ gallon of Part B Hardener and mix thoroughly for 2-3 minutes with a low speed (400-600 rpm) drill motor/jiffy mixer. Make sure to scrape the sides and bottom of the container during mixing.

Apply with a stiff squeegee or notched trowel and backroll using a 3/8" non-shedding nap roller. Always backroll the product using the "crossrolling" technique. 1 gallon should cover approx. 100 sq. ft. (1.5 gal kit covers 150 sq. ft.).

▪ Dispersement Effect

To help alleviate roller lines and bubbles, denatured alcohol should always be used when installing a metallic floor system. The technique used will depend on the overall effect desired.

Once the epoxy is backrolled, immediately walk back over surface using spiked cleats and, using a high-quality spray bottle, spray denatured alcohol on the surface of the wet epoxy. Denatured alcohol can be sprayed on in larger droplets or in a mist in all directions. Large droplets will cause a more drastic "Hammered Metal" Effect, while a fine mist will create a much more natural "Modeling" Effect. It is best to spray into the air and allow the denatured alcohol to fall on the surface straight down rather than spraying at an angle. Make sure to spray every square inch of wet epoxy to properly randomize the appearance.

Helpful recommendations: It is much easier to work up to joint lines and/or sections of 600 square feet or less. If doing larger areas, make sure to have enough help to apply product quickly.

Caution: The LD31-96 will begin to tack up shortly after application. Be ready to move as quickly as possible. For longer working time, use the LD33-96 product.

- Other Applications:
A final backroll with a plastic looped roller cover can create an interesting texture and pigment movement in the metallic floor.
The use of a cordless leaf blower can also assist in blending multiple colors together and help in a more natural appearing "feathered" finish.
There are many different possible results, but it is highly recommended to test any technique on a sample area prior to testing out on an actual jobsite.

Top Coat

In a clean and dry bucket, thoroughly mix two parts A with one part B of LD31-96 epoxy together by volume. Combine using an agitator, jiffy mixer or stir stick. Mix for at least 2 minutes or until completely combined, scraping the sides and bottom of mixing bucket. Only prepare the amount you can use in 15 minutes or less (larger batches than 1.5 gallons will short pot life.) The top coat is ready to be applied by brush, roller, or squeegee. If using a squeegee, be sure to back roll for uniform coverage. Coverage should be approximately 150 sq. ft. per gallon.

Optional Materials
Additional Top Coats

- LD2003 CRU Chemical Resistant Urethane. Adds superior chemical resistance, abrasion tol erance, scratch resistance, UV portection and damage protection to the final color coat. Available in gloss (LD2003) or satin (LD2004). **Satin finish will detract the metallic effect*.
- LD2009 Polyurea. Adds chemical and abrasion resistance, protects final color coat from damage and UV resistance. Available in a 2 hour (LD2009), 4 hour (LD9750), or 12 hour (9790) dry time.

Note

- *Please refer to individual product technical sheets for more detailed product information on all products within this specification*.

Clean Up

Uncured material can be removed with a solvent. Cured material can only be removed mechanically.

Limitations

- Temperature/Weather: Do not install if the temperature is below 55 degrees.
- Water will ruin uncured products. If inclement weather threatens, cover area to protect new application.
- Do not allow any product to FREEZE while in container.

Maintenance

Floors should be inspected during use for inconsequental damage and wear. Damage areas should be remediated as soon as possible to prevent further damage to the area(s). To repair, remove any loose coating and refer to this specification; repeat process in affected area.

Clean daily using a dry soft bristled broom, dry mop, or wet mop with a floor/tile cleaner, to retain the epoxy looking new.

Health, Protection and Safety

Refer to individual product container labels, individual product technical data sheets, and SDS for health, protection, and safety precautions.

Warranty

When the warranted product is applied in accordance with this specification guide, label instructions and common sense widely accepted painting practice and procedures, Life Paint will warrant said product against manufacturing defects that might cause premature failure such as blistering, peeling, or unusual wear. Directions are as complete as possible but cannot encompass all conditions, applications, and/or surfaces beyond manufacturer's control. In the event of a warranted failure and upon the presentation of proof of purchase, the remedy will be the provision price for said product. This warranty does not include labor or the costs associated with labor. This warranty may not be transferred or assigned and extends specific legal rights which may vary from state-to-state. No other warrantee is expressed or implied. Life Paint Company, Santa Fe Springs, CA (562)944-6391.

LIFE SPECIALTY COATINGS

Paint Chip Epoxy Floor 100%

Paint Chip Finish - Resinous Floors

Specification Guide

100% Solids Epoxy

Description

Life Deck Specialty Coatings Paint Chip Epoxy Floor 100% provides an extremely tough and chemical resistant floor with a decorative paint chip finish. This system should be applied by the professional user.

Uses & Recommended Surfaces

For interior use only unless protected by another product with a UV inhibitor such as our aliphatic urethane. Uses include industrial floors in factories, schools, hospitals, garage floors, and warehouses.

- Interior Concrete Floors
- Industrial Floors
- Garages
- Showrooms
- Warehouses
- Restaurants

Features

- Easy To Apply
- USDA Compliant
- Fast Drying
- UV Resistant
- Decorative
- Excellent Adhesion
- Excellent Chemical and Solvent Resistance

Products

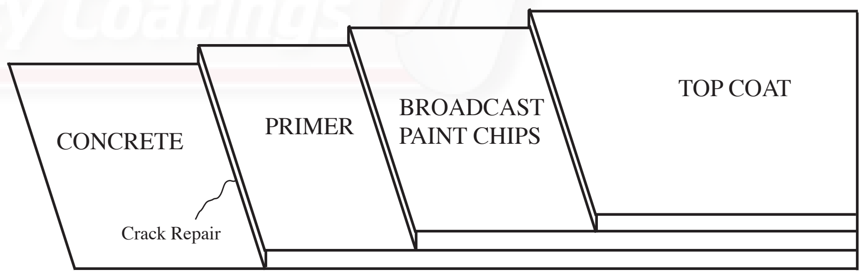
12 Series Pigmented Epoxy 100% Solids.
- Primer- 200 square feet per gallon

31 Series Pigmented Epoxy 100% Solids.
- Broadcast Coat- 200 square feet per gallon

31-96 Series Clear Epoxy 100% Solids.
- Top Coat- 200 square feet per gallon

LD7200 100% Solids
- Crack Filler/Patching

LDPC Paint Chips



Chemical Test Data

50% NaOH (Sodium Hydroxide)----------No Effect

10% Acetic Acid-----------------------------No Effect

30% NH_3 (Ammonia)-----------------------No Effect

Xylene---No Effect

Brake Fluid-----------------------------------Becomes Tacky

MEK---Becomes Tacky

Coffee (115°F)--------------------------------No Effect

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Etching

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▪ Prepare surface by either shotblasting, grinding, Liquid Grind™ (approved liquid etch) or, if a previous coating is currently installed, sanding. Prepare concrete profile equal to CSP 2-3 as specified by ICRI (International Concrete Repair Institute. When using a mechanical method, be sure not to be too aggressive leaving behind grind marks or grinding it to a smooth surface.

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Paint Chip Epoxy Floor 100%

Paint Chip Finish - Resinous Floors

Specification Guide

100% Solids Epoxy

Note

▪ *When working with epoxies, subsequent coats, or recoats, must be completed before 48 hours after the previous application. If not, sanding of the cured application is recommended to ensure subsequent coat adhesion.*

Primer

In a clean, dry bucket, mix 2 parts A with 1 part B of LD12 Series epoxy together by volume and combine for 3-5 minutes. Combine using an agitator, jiffy mixer or stir stick. Only prepare the amount you can use in 30 minutes or less. The primer is ready to be applied by brush, roller, or squeegee. If using a squeegee, be sure to back roll for uniform coverage. Coverage should be approximately 200 sq. ft. per gallon.

Broadcast Coat & Paint Chips

In a clean, dry bucket, mix 2 parts A with 1 part B of LD31 Series epoxy together by volume and combine for 3-5 minutes. Combine using an agitator, jiffy mixer or stir stick. Only prepare the amount you can use in 30 min or less (larger batches than 1.5 gallons will shorten pot life.) Be sure to scrape the sides and bottom of the mixing bucket to ensure a complete mixture. The broadcast coat is ready to be applied by brush, roller, or squeegee. If using a squeegee, be sure to back roll for uniform coverage. Coverage should be approximately 200 sq. ft. per gallon.

The LDPC Paint Chips are installed during the application of the Broadcast Coat, LD31 Series Pigmented Epoxy. While the Broadcast Coat is still wet, broadcast LDPC in to the air about head high, or slightly higher. The LD31 Series can be walked on using spiked shoes, while it is wet. Use at least 10 pounds of LDPC per 100 square feet of surface, fully covering the surface floor. When the LD31 Series is cure, approximately 12 hours, lightly scrape the LDPC to remove any high points, sweep, and remove all loose LDPC.

Top Coat

In a clean and dry bucket, thoroughly mix 2 parts A with 1 part B of 31-96 Series clear epoxy together by volume. Combine using an agitator, jiffy mixer or stir stick. Mix for 3-5 minutes or until completely combined, scraping the sides and bottom of mixing bucket. Only prepare the amount you can use in 30 minutes or less (larger batches than 1.5 gallons will short pot life.) The top coat is ready to be applied by brush, roller, or squeegee. If using a squeegee, be sure to back roll for uniform coverage. Coverage should be approximately 200 sq. ft. per gallon.

Optional Materials
Additional Top Coats

- LD2003 CRU Chemical Resistant Urethane. Adds superior chemical resistance, abrasion tolerance, scratch resistance, UV portection and damage protection to the final color coat. Available in gloss (LD2003) or satin (LD2004).
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Anti-Slip

LIFE SPECIALTY COATINGS

Paint Chip Epoxy Floor 100%

Paint Chip Finish - Resinous Floors

Specification Guide

100% Solids Epoxy

Note- *The Paint Chip Epoxy Floor WB has a natural texture. Adding more anti-slip materials is not usually necessary but can be added if needed.*

- Safe T Grip. Adds a soft, light texture to help prevent slip. (3 oz by weight per gallon.)
- E263. Adds a more aggresive texture to help prevent slip even while wet. (1 pound by weight per gallon.)
- While mixing components A & B of the final coat, add anti-slip aggregate by mixing the appropriate amount.

Note

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