

I. Substrate Inspection/ Preparation:

A. General

1. All building permits are required by local authorities shall be produced by contractor, owner, and/or their agent.
2. All inspections, as required by local building authorities, shall be the responsibility of the contractor, owner, and/or their agent.
3. Verify all necessary tools and PPE according to the various SDS Sheets are on the job site.
4. For application instructions in Inclement Weather areas, refer to Waterproof Deck Coating – Con-Dek System Application Instructions CD-120-IW.
5. For application instructions in Miami Dade County, refer to Waterproof Deck Coating – Con-Dek System Application Instructions CD-120-IW, Miami Dade NOA Section.

B. Traditional Concrete Substrates

1. The builder must give assurance that concrete has been installed according to the International Building Code (IBC) standards and requirements. The Pli-Dek technicians, and/or Pli-Dek LLC will not be responsible for any deficiencies in the existing concrete substrate.
2. Drying and curing of concrete shall be 28 days before any Con-Dek System is applied to the surface. Moisture content of the existing concrete shall be no greater than 5%. If any other system, other than water cure is used, the General Contractor, and/or Owner, must so advise the Pli-Dek installer.
3. Curing compounds of wax, oil, silicone, epoxy, moisture, paint, and some resins affect adhesion of the Con-Dek material. Therefore, if such materials have been used to cure the concrete, then the concrete must be pre-conditioned to accept the Con-Dek, if building permits are required by local authorities shall be produced by contractor, owner, and/or their agent.

C. Cleaning/Etching

1. Take any necessary action to clean surface before proceeding with the Con-Dek System. If other subcontractors have done damage, be sure to procure a signed additional work order. **Contact Pli-Dek LLC for additional information.

D. Preparation

1. Concrete substrate must be clean, dry, and free of all contaminants. If significant contaminants are present, contact Pli-Dek for additional information.
2. Prepare surface by grinding or shot blasting. If grease or significant contaminants are present, contact Pli-Dek for additional instructions.
3. Ensure preparation procedures comply with local building and environmental regulations.
4. The concrete shall be porous, and have a minimum CSP-2 Rating, suitable to receive the coating.
5. Moisture & Vapor Transmission Testing refer to Concrete Moisture & Vapor Transmission Testing Technical Bulletin (TB-111).

6. Apply a primer coat of one of the following:
 - a) A mixture of 1-gallon of GU80-1 Liquid Admixture to 4-gallons of water. Apply at a rate of 1-gallon per 240 sqft.
 - b) Flood Coat of Vapor Prime at an application rate of 100 sqft per gallon. Broadcast 16 grit silica sand into the wet Vapor Prime at a rate of 50lbs per 100 sqft.

E. Crack Treatment

1. Rout-out cracks with a crack chaser that is normally mounted on a small hand-held grinder. It may be necessary to open crack further with a dry-cut diamond blade mounted on a grinder, or a skill saw.
2. Additional control joints should be cut where necessary as recommended by structural engineer. Cutting additional expansion joints to help control concrete movement shall be determined by others. Future cracking due to the lack of expansion joints shall be the responsibility of others.
3. Fill cracks with ASTM C 920 Polyurethane Sealant, filling to the surface of the concrete. Allow 4 - 6 hours for curing time. The urethane must be fully cured before applying the subsequent coating. Apply 6" strips of Fiberglass and PD Resin over the cured urethane.
4. *The Pli-Dek installer and/or Pli-Dek LLC will not be responsible for structural movement that may result in new cracks, and/or recurring of existing cracks in substrate. Consequently, no warranty on cracking (expressed or implied) can be provided.*

F. DEK C-MENT (Manufactured by MaxxExteriors)

1. Install the DEK C-MENT according to MaxxExterior published specifications and application guidelines.
2. Ensure that the DEK C-MENT has a moisture content less than 5% prior to application of Pli-Dek products.
3. Ensure that the DEK C-MENT has properly placed bull nosed control joints and that ALL Pli-Dek products adhere to the contour of the bullnose.
4. Apply a primer coat that consists of 4 parts water and 1-part GU80-1 liquid admixture at a rate of approximately 200 sq. ft. per gallon.
5. Apply a screed coat of GU80-1 Custom Top Coat to the entire surface. Mix per Section II and apply at a rate of approximately 175 sq. ft. per batch using a hand trowel.

G. Flashing: The following items that involve flashing must be completed or adhered to:

1. Edge metal is required except in those cases where an open-ended structural slab makes up the outer edge.
2. Posts or any other object that shall protrude through the deck substrate shall be installed and flashed before Con-Dek applications.
3. Any scuppers or overflows must be installed before flashing.
4. If metal flashing is to be installed by others, the sole responsibility of the flashing installation and proper caulking shall be of the Owner, or General Contractor.

5. Flashing shall be minimum 26 gauge galvanized, 302 Stainless Steel, or Copper (contact Pli-Dek for Alternatives).
6. Ensure ALL metal flashings are wiped clean with a solvent to ensure oils are completely removed from the surface.
7. Dissimilar metals, such as Copper and galvanized, should NEVER come in direct contact with each other.
8. Proper flashing must be installed at all doors, walls, posts, penetrations, columns, etc.
9. Flashing details will vary from job to job depending on framing and exterior wall systems. Please contact Pli-Dek LLC for the appropriate flashing details. Pli-Dek provided architectural details are to be used as a guide.
10. Flashing must be installed to accommodate all exterior wall coating applications from coming in contact with the deck surface. Exterior siding, stucco, etc. must be held off the deck a minimum of 50mm (2").
11. All flashing overlaps shall be a minimum of 4", installed not to "buck" water, and be caulked horizontally and vertically at the furthestmost edge with a ¾" bead of sealant between any pieces of flashing that adjoin. (Surface caulking is NOT acceptable). When installed properly, the flashing overlap should visibly have continuous caulking exposed.
12. It is optional to coat all vertical flashing with ¾ oz. Fiberglass and PD Resin or PD Flash Coat and Flash Coat Seam Tape or self-adhering drywall mesh tape, GU80 Top Coat, and GS88 Pigmented Sealer at the time of applying each product.
13. All vertical legs of flashing must be counter flashed with appropriate building materials per local building code.
14. Contact Pli-Dek LLC for specific flashing details over DEK C-MENT.

H. Sloping:

1. It is the General Contractor's, his representative's, or individual owner's responsibility to assure adequate drainage to prevent holding of water.
2. Pli-Dek LLC recommends a slope of 1/8" – ¼" per linear foot.
3. If auxiliary slope is required, contact Pli-Dek for additional information.
4. Pli-Dek LLC and/or trained applicator(s) will not be held responsible for ponding water or the effects resulting from inadequate sloping or installation of slope materials.
5. Pli-Dek requires galvanized, stainless steel or copper deck drain(s), over light-weight concrete installations, per Drain Detail CD-11-IW.
6. Over structural concrete, cast-iron drains are recommended. Contact Pli-Dek for help in acquiring these drains. Do not use plastic or shower drains in the assembly. Use of these types of drains will void warranties.
7. If copper drains are utilized, contact Pli-Dek for instructions on dissimilar metals.
8. Alternatives available for proper drainage are the responsibility of the General Contractor. Contact Pli-Dek LLC for complete details.

II. Mixing Instructions:

A. GU80-1 Top Coat

1. Pour 4.75L (1.25 gallons) of GU80-1 Liquid Admixture into a clean 19L (5-gallon) plastic container.
2. Add one 21kg (46 lbs.) bag of GU80-1 Top Coat powder. Mix thoroughly for 3 to 4 minutes, with a Wind-lock B-M1 mixing blade, or equivalent, powered by a 13mm (1/2 inch) variable speed drill, capable of producing 1000 RPMs. TIP: In areas subject to extremely dry, and/or hot climates, it may be necessary to add water (up to .47L {1 pint} per mix). In order to avoid flash drying it may be necessary to chill the GU80-1 Liquid Admixture before mixing. Proper PPE should always be worn when working with Pli-Dek Products.
3. Pli-Dek products must be stored in the shade to prevent overheating and reduction of pot life.
4. If colored cement is required, a Pli-Dek recommended tint pack may be added to the mix to achieve the desired color. NOTE: to ensure that all the colorant is dispersed out of the container.
5. ***All mixes must be consistent (use the same mix ratios) to maintain color consistency.***

B. GU80-1 Custom Top Coat

1. Pour 4.75L (1.25 gallons) of GU80-1 Liquid Admixture into a clean 19L (5-gallon) plastic container.
2. Add one 21kg (46 lbs.) bag of GU80-1 Custom Top Coat powder. Mix thoroughly for 3 to 4 minutes, with a Wind-lock B-M1 mixing blade, or equivalent, powered by a 13mm (1/2" variable speed drill, capable of producing 1000 RPMs. TIP: In areas subject to extremely dry, and/or hot climates, it may be necessary to add water (up to .47L {1 pint} per mix). In order to avoid flash drying it may be necessary to chill the GU80-1 Liquid Admixture before mixing. Proper PPE should always be worn when working with Pli-Dek Products.
3. Pli-Dek products must be stored in the shade to prevent overheating and reduction of pot life.
4. If colored cement is required, a Pli-Dek recommended tint pack may be added to the mix to achieve the desired color. NOTE: to ensure that all of the colorant is dispersed out of the container.
5. ***All mixes must be consistent (use the same mix ratios) to maintain color consistency.***

III. Application:

A. PD Resin Application:

1. First Coat:
 - a) The Pli-Dek Applicator must have sole right of access to the specified areas for the time needed, in order to complete the application of the Con-Dek System and obtain an adequate cure.
 - b) Air temperature for application of the PD Resin Base Coat must be between 40°F and 110°F and must remain so for a minimum of 8 hours.

- c) Lay out the $\frac{3}{4}$ oz fiberglass mat over entire deck surface extending to all edges of the deck and up all vertical transitions. Overlap fiberglass mat seams a minimum of $\frac{1}{4}$ " to a maximum of $\frac{1}{2}$ ".
 - d) Thoroughly mix the PD Resin and then pour PD Resin base coat over the fiberglass mat and apply with a pool trowel at a rate of approximately 40 - 50 square feet per gallon. Allow 6 – 8 hours to dry.
- 2. Second Coat:
 - a) Air temperature for application of the second coat of PD Resin Base Coat must be between 40°F and 110°F and must remain so for a minimum of 8 hours.
 - b) Deck area must be free of all surface contaminants, such as dust, dirt, etc. Remove any loose areas, where fiberglass did not bond to the concrete and reapply PD Resin and fiberglass as needed before application of second coat.
 - c) Apply a second coat of PD Resin Base Coat using a $\frac{3}{4}$ " nap roller at a rate of 85 - 100 square ft. per gallon as described above and allow 2-6 hours to dry.
- 3. Optional:
 - a) A screed coat of GU80-1 Top Coat can be applied over the fiberglass and PD Resin application in order to make a smoother surface, or to help protect the PD Resin if prolonged exposure to construction trade traffic is anticipated.

B. Finish Options:

- 1. Preparation:
 - a) Prior to any finish coat installation, the following must be completed:
 - i. Grind any rough areas, being careful not to damage Fiberglass and PD Resin coat. Rough areas will affect the aesthetic appearance of the finished product.
 - ii. The deck must be free of all surface contaminants, such as dust, dirt, etc. which will impair the adhesion of the Finish Coats.
- 2. Knockdown Texture Finish:
 - a) Air temperature for application of the Knockdown Texture Coat must be between 40°F and 110°F and must remain so for a minimum of 8 hours.
 - b) Mix the GU80-1 Top Coat as described in Section II - A.
 - c) Using a hopper gun, spray the Knockdown Coating over the entire deck surface at a rate of 175 square feet per mix. **CAUTION: AS WITH ANY SPRAY MATERIAL, BE CERTAIN TO PROTECT ALL SURROUNDING AREAS FROM OVER-SPRAY.**
 - d) When the material begins to dry, knock down the material with a trowel. TIP: In order to eliminate footprints, we suggest wearing metal spiked shoes (golf shoes) during this process.
 - e) Allow the Knockdown to dry a minimum of 2 - 6 hours, depending on weather.

- f) Remove any sharp edges by scraping the surface with a scraper or trowel.
- g) Air temperature for application of the GS88-1 Pigmented Sealer must be between 40°F and 110°F and must remain so for a minimum of 8 hours. Ensure humidity levels are low. Do not apply over moisture.
- h) The deck must be free of all surface contaminants, such as dust, dirt, etc., which will impair adhesion of the GS88-1 Pigmented Sealer.
- i) Mix the GS88-1 Pigmented Sealer thoroughly with the use of mechanical mixers. All containers should be boxed and mixed to ensure consistent coloring throughout.
- j) Apply the GS88-1 Pigmented Sealer over the dry Knockdown application at a rate of 100 square feet per gallon using a 19mm (¾") paint roller nap, suitable for latex type coatings. Two Coats may be necessary.
- k) Allow GS88-1 Pigmented Sealer coat to dry for a minimum of 6 hours.
- l) To make cleaning easier in high traffic areas, a coat of GS13 or PD Clear Sealer may be applied over the dry GS88-1 Pigmented Sealer at a rate of 200 square feet per gallon. Surface will become more slippery. Use of a non-skid agent is recommended.

3. Polymer Sand Finish:

- a) Air temperature for application of the Sand Finish must be between 40°F and 110°F and must remain so for a minimum of 8 hours. Do not apply over any moisture.
- b) Mix the GU80-1 Gray Base coat by pouring 1.5 gallons of GU80-1 Liquid Admixture into a clean 19L (5 gallon) plastic container. Add one 21kg (46lbs.) bag of GU80-1 Base Coat powder. Mix thoroughly for 3 to 4 minutes, with a Wind-lock B-M1 mixing blade, or equivalent, powered by a 13mm (1/2") variable speed drill, capable of producing 1000 RPMs. TIP: In areas subject to extremely dry, and/or hot climates, it may be necessary to add water (up to .47L [1 pint] per mix. In order to avoid flash drying it may be necessary to chill the GU80-1 Liquid Admixture, before mixing. Proper ventilation masks should be worn at all time when working with all Pli-Dek Products.
- c) Trowel the GU80-1 Base Gray coat over the entire deck surface at a rate of 100 to 125 square feet per mix.
- d) Broadcast aggregates of washed, dry, rounded, crystal silica sand, approximately 16 mesh at a rate of 100 lbs. per 100 square feet or until refusal (depending on skid resistance requirements) into wet/uncured Base Coat.
- e) Allow 6 hours before removing all excess silica sand. A proper ventilation mask should be worn at all times when working with Pli-Dek Products.
- f) Air temperature for application of the GS88-1 Pigmented Sealer must be between 40°F and 110°F and must remain so for a minimum of 8 hours. Ensure humidity levels are low.

- g) The deck must be free of all surface contaminants, such as dust, dirt, etc., which will impair adhesion of the GS88-1 Pigmented Sealer.
 - h) Mix the GS88-1 Pigmented Sealer thoroughly by the use of mechanical mixers. All containers should be boxed and mixed to ensure consistent coloring throughout.
 - i) Apply the GS88-1 Pigmented Sealer over the dry sand finish at a rate of 75 to 100 sq. ft. per gallon, (2 coats may be necessary using a 19.1mm (¾") paint roller nap, suitable for latex type coatings. Two coats may be necessary.
 - j) Allow GS88-1 Pigmented Sealer coat to dry for a minimum of 6 hours.
 - k) To make cleaning easier in high traffic areas, a coat of GS13 or PD Clear Sealer may be applied over the dry GS88-1 Pigmented Sealer at a rate of 200 square feet per gallon. (Surface will become more slippery. Use of a non-skid agent is recommended.)
4. Con-Dek "U" (Underlayment): *Note: The vertical leg of all flashings should be coated with Fiberglass and PD Resin or PD Flash Coat and Flash Coat Seam Tape or self-adhering drywall mesh tape.*
- a) Air temperature for application of the Con-Dek "U" must be between 40°F and 110°F and must remain so for a minimum of 8 hours. Do not apply over any moisture.
 - b) PD Resin should not be exposed to construction traffic.
 - c) Mix the Pli-Dek GU80-1 Top Coat as described in Section II – A.
 - d) Apply a screed coat of GU80-1 Top Coat over the entire deck at a rate of 150 square feet per mix. Allow to dry for a minimum of 2 - 6 hours. Mix the GU80-1 Top Coat as described in Section II – B.
 - e) Allow a minimum of 8 hours prior to installing any finished product over the PD Resin and sand surface or screed coat.
 - f) (Optional) Consult Tile Manufacturer or Sub for Recommendations: Broadcast aggregates of washed, dry, rounded crystal silica sand, approximately 16 mesh, at a rate of 100lbs. per 200 square feet.
5. Custom Finish:
- a) Air temperature for application of the Custom Finish must be between 40°F and 110°F and must remain so for a minimum of 8 hours.
 - b) Mix the GU80-1 Custom Top Coat as described in Section II - B. Add the selected color tint pack to establish the desired grout color. Note: All mixes must be consistent (use the same mix ratios) to maintain color consistency.
 - c) The deck must be free of all surface contaminants, such as dust, dirt, etc. which will impair adhesion of the GU80-1 Custom Top Coat.
 - d) Trowel a tinted GU80-1 Custom Top Coat over the entire deck surface at a rate of 150 square feet per mix. Allow to dry for a minimum of 2 – 6 hours. (Decorative scroll lines can be achieved at this step prior to screed coat drying, as long as no templates or tape are going to be used.)

- e) Install one of the various types of stencil patterns or install tape pattern over cured screed coat to achieve desired pattern finish.
- f) Mix the GU80-1 Custom Top Coat as described in Section II – B.
- g) Trowel a tinted screed coat over the stenciled or taped deck surface at a rate of 150 square feet per mix. Apply the desired texture while spreading the GU80 Custom Top Coat. Allow to dry for a minimum of 2 - 6 hours.
- h) Apply desired stain/shading with PD Stain using a low-pressure sprayer, soft broom, or sponge. Contact Pli-Dek, LLC. for complete details.
- i) Remove stencil or tape pattern.
- j) The deck must be free of all surface contaminants, such as dust, dirt, etc., which will impair adhesion of the GS13 or PD Clear Sealer.
- k) Apply a coat of PD Clear Sealer or GS13 Clear Sealer at a rate of 100 square feet per gallon. (2 coats may be necessary).

IV. Slip and Fall Precautions:

OSHA, American Disabilities Act (ADA), and The Federal Housing Act (FHA) have now set enforceable standards for slip-resistance on pedestrian surfaces. Pli-Dek LLC recommends the use of angular slip-resistant aggregate in all coatings or flooring systems that may be exposed to wet, oily/greasy, or otherwise potentially slippery conditions. It is the end user's responsibility to provide a flooring system that meets current safety standards. Pli-Dek Systems, Inc or its sales agents will not be responsible for injury incurred in a slip and fall accident. Please consult local building codes for the current coefficient of friction requirement.

Disclaimer

Information contained in this specification conforms to standard detail and product recommendations for the installation of the Pli-Dek products as of the date of publication of this document and is presented in good faith. Pli-Dek LLC assumes no liability, expressed or implied, as to the architecture, engineering or workmanship of any project. To ensure that you are using the latest, most complete information, contact Pli-Dek LLC, at:



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* The Trained Applicator Certificate indicates certain employees of the company have been instructed in the proper application of Pli-Dek products and have received copies of the Pli-Dek Application Instructions and Specifications. The Trained Contractor Program is not an apprenticeship. Each trained contractor is an independent company and bears responsibility for its own workmanship. Pli-Dek LLC assumes no liability for the workmanship of a trained contractor.