COLD RUBBER HIGH BUILD SYSTEM

FLUID APPLIED WATERPROOFING

MATERIALS

1. Pli-Dek Cold Rubber - High Build V or H
2. PD-2014 Reemay Fabric
3. Protection Course
4. PD Drain Board
5. Polyurethane Sealant
6. Closed Cell Backer Rod
7. Filter Fabric

TOOLS

1. Stiff Broom
2. Gas Blower
3. Extension Cord
4. Safety Equipment (Helmet, Mask, Goggles, Gloves, etc.)
5. Spike Shoes
6. Variable Speed Drill
7. Wind-lock B-M1 mixing blade or equivalent
8. Extension Cord
9. Level
10. Pencil
11. Scissors
12. Masking Tape
13. Drop Cloth
14. Stainless Steel Trowel
15. Margin Trowel
16. Small Paint Brush
17. Paint Roller (3/4" nap)
18. Extension Roller Handle
19. Smooth Squeegee

I. Substrate Inspection/ Preparation

A. General

1. This document is to establish uniform procedures for installing Pli-Dek Cold Fluid Applied Waterproofing Membrane – Cold Rubber High Build.
2. Consult with Pli-Dek Systems, Inc. if modifications to this Application Instruction are required to adjust to job-site conditions.
3. All building permits are required by local authorities shall be produced by contractor, owner, and/or their agent.
4. All inspections, as required by local building authorities, shall be the responsibility of the contractor, owner, and/or their agent.
5. Pli-Dek materials must be applied over sound, dry, substrates.
6. Surfaces shall be properly prepared with bug holes, holidays and damaged surfaces prepared to a smooth solid substrate.
7. All surfaces must be sloped a minimum of 1/8" per foot

B. Traditional Concrete Substrates

1. Concrete surfaces to receive waterproofing membrane are required to be a minimum of 2500 psi.
2. The concrete surface must be cured 72 hours and dry to receive the Pli-Dek Waterproofing System.
3. When going over (green concrete), Pli-Dek requires the addition of the PD Green Concrete Additive) ½ pint per 5-gallon bucket.
4. The concrete surface requires a proper profile to receive the waterproofing membrane. a Light broom or equivalent finish is recommended. Surfaces which are steel troweled require scarification or bead blasting to provide the proper profile.
5. Concrete surfaces shall be free of voids, exposed aggregate, honey combs, holidays, ridges or depressions, and projections which preclude a smooth sloped surface.
6. All reinforcement including cut-off rebar shall be covered with a minimum of ¼" (20mm) of epoxy or approved repair mortar.
7. Concrete to receive waterproofing shall be water cured and free of curing compound contaminates. No silicone curing compound may be used.
8. All penetrations shall be solidly grouted or epoxied in place to prevent movement in the penetration. No flexible or corrugated pipe shall be used for through slab penetration. All copper piping shall be sleeved through the concrete penetration. Penetrations require a minimum of 1½" of spacing between multiple penetrations.
9. Any variation from the specifications mentioned in this section, require written approval and system recommendations from Pli-Dek Systems, Inc.
10. Expansion Joint installation; contact Pli-Dek Systems, Inc.
11. All sheet metal flashing to be installed per specification.

C. Plywood

1. Plywood shall be a minimum of ¾"(20mm) exposure 1 sheathing, and have a maximum span between supports 16" O.C. (410mm). All plywood shall be securely fastened to the supports with screws or ring shank nails spaced in accordance with APA guidelines and Building Code requirements.
2. Framing or blocking must support all plywood edges, except as per APA guidelines; blocking is not required when tongue and grooved plywood is utilized.
3. The plywood surface shall be clean, dry, and free of dirt, dust, oil, petroleum products, paint and any other contaminates that may impair adhesion.
4. All adjacent edges of the plywood sheets shall not be more than 1/32" (0.78 mm) out

of plane (i.e. above or below adjacent sheet).

5. Plywood should be installed with a ¼" (6.4mm/.3m) per linear foot slope to drain. Decks with parapet enclosures must be sloped to a drain or scupper.
6. Any variation from the framing specifications mentioned in this section, require written approval and system recommendations from Pli-Dek Systems, Inc.

D. Concrete Masonry Units (CMU)

1. All CMU (concrete block) work requiring waterproofing requires a cementitious coating approved by Pli-Dek Systems, Inc.
   a. All mortar joints are required to be filled with a cementitious coating approved by Pli-Dek Systems, Inc.

E. Retrofit/Tear-Off Application

1. Asphalt, coal tar pitch, or other existing membrane shall be removed. CONTACT Pli-Dek Systems, Inc to review existing conditions for site specific requirements.

II. Substrate Cleaning

1. Thoroughly sweep the substrate which is to receive the waterproofing membrane.
2. Substrate shall also be blown clean using an air compressor to remove any remaining loose debris.
3. Adhesion Testing is recommended to provide final check to determine if concrete has been properly cleaned by installing a test patch of Cold Rubber High Build to the surface and check its adhesion.

III. Membrane Preparation

1. The Cold Rubber High Build shall be kept warm, maintaining a minimum temperature of 40^{0}F.
2. Before application, mix the Cold Rubber High Build material with water (water must be added) at a ratio of one quart of water to five gallons of Pli-Dek Cold Rubber High Build. This will yield 5.25 gallons of membrane. The mixing ratio is 20 parts Pli-Dek Cold Rubber High Build membrane to 1 part water (20:1).
   a. The Cold Rubber High Build should be thoroughly mixed thoroughly using a mechanical mixer at slow speed to ensure a homogeneous material. Do not mix in an up and down motion, or with a blade that brings air into the mixture.

IV. Detailing

A. Concrete Substrate:

1. Sloping of the structural deck surface at 1/8" per foot, or per local Building Code requirements.
2. Shrinkage cracks shall be treated with a pre-treat coat of Pli-Dek Waterproofing Membrane – Cold Rubber High Build (30 mil).
3. Moving construction or structural cracks greater than 1/16" (1.5 mm) shall be routed out and sealant (polyurethane/ASTM C 920) installed prior to the installation of the Pli-Dek Waterproofing Membrane.
4. At all horizontal / vertical junctures and projections a sealant fillet (cant) of ¾ "X ¾" (polyurethane/ASTM C 920) shall be installed.
5. Caulking must cure a minimum of 12 hours prior to the application of the membrane.

B. Plywood Substrate:

1. All metal surfaces of pre-treat or sealant preparations shall be wiped clean with Vinegar or Acetone, prior to the application of the field membrane.
2. At plywood seams, metal flashing transitions and dissimilar transitions (excluding expansion joints) apply a detail strip 4-6" wide at 45 mils. Embed 4-6" strips of PD-2014 Reemay Fabric into the Cold Rubber. Once detailing has been completed allow to cure and apply specified system over the detail areas.
3. All detail coats must cure a minimum of 2-4 hours prior to the application of the membrane.

C. Expansion Joints

1. Contact Pli-Dek Systems, Inc for specific job-site condition requirements for expansion joints.

V. Membrane Application:

A. Standard Application: Horizontal or Vertical Surfaces

1. Pli-Dek Waterproofing Membrane – Cold Rubber High Build shall be installed by roller, trowel, or smooth squeegee application at a rate of 60 to 120 mils (25 square foot per gallon) wet film thickness (WFT). Allow membrane to cure a minim of 2-4 hours before proceeding to subsequent coats. Cure time will vary depending on temperature and humidity.
2. If more than 48 hours pass between coats, the surface ***must be*** primed with the Pli-Dek Cold Rubber Primer.
3. Contact Pli-Dek for additional information when installing at a thickness above 90 mils in a single pass.

B. Protection Course/Drainage Composite:

1. Specified protection course is placed over properly cured Pli-Dek Waterproofing Membrane – Cold Rubber High Build.
   a. Layout specified protection course over the cured Cold Rubber High Build

with a minimum of 1½" side overlaps and 3" end laps.

b. Cut and fit the specified protection course around penetrations with a maximum of 1" variance from the penetration.

2. PD Drain Board as specified may be placed over the specified protection board and/or properly cured Pli-Dek Waterproofing Membrane – Cold Rubber High Build.

a. Roll the specified PD Drain Board over the protection board (if specified) or over the cured Cold Rubber High Build.

b. Butt the side and roll ends together and overlap the filter fabric on to the adjacent roll to provide a continuous mat for separation of soils or overburden.

c. Cut and fit the PD Drain Board around penetrations with a maximum of 1" variance from the penetration.

d. On horizontal applications, it is recommended that tape is applied to seams to prevent debris from getting into the drainage system.

C. Limitations:

1. Application Temperature: 40ºF (4ºC).
2. Cure times are dependent on environmental conditions: substrate temperature, air temperature, humidity, wind speed, etc.

D. Flood Testing:

1. The Pli-Dek Waterproofing Membrane – Cold Rubber High Build shall be properly cured prior to water testing.
2. Flood Testing is recommended per ASTM D 5957 with 2" of water for a minimum of 24 hours.
3. As an alternative, Electronic Field Vector Mapping may be used.

Disclaimer

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* The Trained Applicator 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 Systems Inc. assumes no liability for the workmanship of a trained contractor.