POLYMER MODIFIED ASPHALT (PMA)
FLUID APPLIED WATERPROOFING

MATERIALS
1. Polymer Modified Asphalt (PMA)
2. PMA-UV
3. PD-2014 Reemay Fabric
4. PolyScrim
5. Protection Course
6. PD Drain Board

TOOLS
1. Stiff Broom
2. Gas Blower
3. Safety Equipment (Helmet, Mask, Goggles, Gloves, etc.)
4. Spike Shoes
5. Variable Speed Drill
6. Wind-lock B-M1 mixing blade or equivalent
7. Extension Cord
8. Level
9. Pencil
10. Utility Knife
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. Notched Squeegee

I. Substrate Inspection/Preparation
A. GENERAL
1. This document is to establish uniform procedures for installing Pli-Dek Fluid Applied Waterproofing Membrane – Polymer Modified Asphalt (PMA).
2. Consult with Pli-Dek Systems, Inc. if modifications to this Application Instructions are required to adjust to job-site conditions.
3. All inspections, as required by local building authorities, shall be the responsibility of the contractor, owner, and/or their agent.
4. Pli-Dek materials must be applied over sound dry substrates.
5. Surfaces shall be properly prepared with bug holes, holidays and damaged surfaces prepared to a smooth solid substrate.
6. All surfaces must be sloped a minimum of 1/4" per foot (6.4mm/.3m).
7. Maximum deflection of a deck surface shall be less than L/360° of the span.

B. TRADITIONAL CONCRETE SUBSTRATES
1. Concrete surfaces to receive waterproofing membrane are required to be a minimum of 2500 psig.
2. The concrete surface must be cured for 28 days and dry to receive the Pli-Dek Waterproofing System.
   a) A mat test may be performed to insure the moisture content of the concrete surface.
   b) Steel pan decks will require additional cure time and mat testing to verify the moisture content of the concrete surface.
3. The concrete surface requires a proper profile to receive the waterproofing membrane. A steel trowel followed by a Light Broom or equivalent finish is recommended. Surfaces which are steel troweled require scarification or bead blasting to provide the proper profile.
4. Concrete surfaces shall be free of voids, exposed aggregate, honey combs, holidays, ridges or depressions, and projections which preclude a smooth sloped surface.
5. All reinforcement including cut-off rebar shall be covered with a minimum of ¼” (20mm) of epoxy or approved repair mortar.
6. Concrete to receive waterproofing shall be water cured and free of curing compound contaminates. No silicone curing compounds may be used.
7. 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.
8. Any variation from the specifications mentioned in this section, requires written approval and system recommendations from Pli-Dek Systems, Inc.

C. PLYWOOD
1. Plywood shall be a minimum of ¾" (20mm) exterior grade, 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 groove 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 plywood seams shall be staggered and gapped 1/8” (3.2mm). All seams shall be properly detailed prior to the installation of the field membrane.
   a) Note: If the plywood is butted tightly, the seams shall be saw cut to provide a 1/8” (3.2mm) gap between sheets, except tongue and grooved. Ensure that the
tongue and groove section of the plywood is installed so as to allow for expansion
5. All adjacent edges of the plywood sheets shall not be more than 1/32" (0.78mm) out of
plane (i.e. above or below adjacent sheet).
6. 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.
7. Any variation from the framing specifications mentioned in this section, require written
approval and system recommendations from PI-Dek Systems, Inc
D. CONCRETE MASONRY UNITS (CMU)
1. All CMU (Concrete Block) work requiring
waterproofing requires a cementitious coating approved by PI-Dek Systems, Inc.
Contact PI-Dek for additional information.
E. RETROFIT. TEAR-OFF APPLICATION
1. Asphalt, coal tar pitch or other existing
membrane shall be removed. CONTACT PI-
Dek Systems, Inc. to review existing
conditions for site specific requirements.
F. 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 PMA to the surface and check
its adhesion.
II. Detailing
A. Concrete Substrate
1. Sloping of the structural deck surface at ¼"
per foot (6.4mm/3m) or per local Building
Code requirements.
2. Shrinkage cracks shall be treated with a
pre-treat coat of Pli-Dek Waterproofing
Membrane – CR (30 mil).
3. Moving construction or structural cracks
greater than 1/8" (1.5 mm) shall be routed
out and sealant (polyurethane/ASTM C 920)
installed prior to installing a pre-treat coat
of Pli-Dek Waterproofing Membrane.
4. At all horizontal / vertical junctures and
projections a sealant fillet (cant) of 3/4 “X 3/4”
(polyurethane/ASTM C 920) shall be
installed.
5. All pre-treat coats 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 Xylene
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 membrane. Once
detailing has been completed allow to cure
and apply specified system over the detail
areas.
3. All pre-treat coats must cure a minimum of 12
hours prior to the application of the
membrane.
C. Expansion Joints
1. At expansion joints, contact PI-Dek Systems,
Inc for specific job-site condition
recommendations.
III. Membrane Preparation
1. The PMA shall be kept warm, maintaining a
minimum temperature of 40°F.
2. Mix the PMA material with a paddle mixer on a
low speed drill for a minimum of 5 minutes prior
to installation of the membrane.
IV. Application
A. Standard Application
1. Horizontal of Vertical Surfaces.
2. Pli-Dek Waterproofing Membrane – PMA shall
be installed by roller, trowel, or squeegee
application at a rate of 60 mil (25 square foot
per gallon) dry film thickness (WFT). For 90 mils
apply two coats of PMA at 45 mils allowing the
first coat to dry prior to installing the second
ccoat.
B. High Build Application
1. Horizontal Surfaces
2. Application of the first coat of Pli-Dek
Waterproofing Membrane – PMA shall
be installed by roller, trowel, or squeegee
application at a rate of 60 mil (25 square foot
per gallon) dry film thickness (WFT).
3. Application of the PD-2014 Reemay Fabric into
the wet PMA shall have overlaps of 2” minimum
and end laps of 4”. Stagger all end overlaps.
Allow the first coat and PD-2014 Reemay
Fabric to set a minimum of 24 hours prior to the
installation of additional coats of PMA.
4. Application of the second coat of Pli-Dek
Waterproofing Membrane – PMA shall
be installed by roller, trowel, or squeegee
application at a rate of 60 mil (25 square foot
per gallon) dry film thickness (WFT).
C. PROTECTION COURSE
1. Specified protection course is placed over
properly cured Pli-Dek Fluid Applied
Waterproofing Membrane (as specified).
   a. Layout specified protection course over
the cured Pli-Dek Fluid Applied
Waterproofing Membrane with a
minimum of 1½” side overlaps and 3”
end laps.
   b. Cut and fit the specified protection
   course around penetrations with a
D. DRAIN BOARD
   1. PD Drain Board as specified may be placed over the specified protection board and/or properly cured Pli-Dek Fluid Applied Waterproofing Membrane.
      a. Roll the specified PD Drain Board over the protection board (if specified) or over the cured Fluid Applied Waterproofing Membrane.
      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.
   2. On horizontal application, it is recommended tape is applied to seams to prevent debris from getting into the drainage system.

E. CLEAN UP
   1. Uncured material can be removed with a solvent. Cured material can only be removed mechanically; care must be taken.

F. FLOOD TESTING
   1. The Pli-Dek Fluid Applied Waterproofing Membrane shall be properly cured prior to watertesting.
   2. Flood Testing is recommended per ASTM D5957 with 2” of water for a minimum of 24 hours.
   3. As an alternative, Electronic Field Vector Mapping may be used.

G. LIMITATIONS
   1. Application Temperatures: 40°F (4°C).
   2. Cure times are dependent on environmental conditions, substrate temperature, air temperature, humidity, wind speed, etc. Care must be taken to ensure that the product is applied in a uniform fashion; the products should not be allowed to puddle.

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 Systems, Inc. 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.