



**RESOURCES,
APPLICATIONS,
DESIGNS, &
CONTROLS, INC.**
3220 E. 59th Street
Long Beach, CA 90805
Tel: (562) 272-7231
Fax: (562) 529-7513

LISTING # 1343

LISTING & TESTING DIVISION

PRODUCT: *PLY DRY III ROOF UNDERLAYMENT*
MANUFACTURER: UFP DISTRIBUTION LLC
2505 Marina Dr.
Elkhart, IN 46514
PLANT LOCATION: 2505 Marina Dr.
Elkhart, IN 46514
CATEGORY: ROOF UNDERLAYMENT
APPLICATION: MANUFACTURED HOME - ROOF UNDERLAYMENT - FACTORY BUILT STRUCTURES

Issued: September 2011

1. SCOPE

RADCO has evaluated the products listed above for compliance with the relevant sections of the following codes:

- 2006, 2009 International Building Code® (IBC)
- 2006, 2009 International Residential Code® (IRC)
- Federal Manufactured Home Construction and Safety Standards, 24 CFR §3280

RADCO is limited to evaluation of the following properties of the above products:

- Roof underlayment performance in accordance with ICC-ES AC188.

2. USES

PLY DRY III underlayments are suitable replacements for Type 1 (No. 15) asphalt saturated felt (ASTM D226, Type I and ASTM D4869, Type I) and Type 2 (No. 30) underlayments as specified in Chapter 15 of the IBC and Chapter 9 of the IRC. The PLY DRY III products are intended to be used as suitable material for roof underlayment in conjunction with asphalt shingles in factory built structures only.

2. DESCRIPTION

The PLY DRY III underlayment consists of one ply of 26 lb. Virgin Kraft paper coated on two sides with a water repellent asphaltic acrylic coating. The underlayment has a nominal weight of 35.5 lbm/100ft² and a nominal thickness of 8.5 mils.

PLY DRY III underlayment is available for builders in rolls of 1,000 and 3,000 lineal feet and in widths of 6 inches up to and including 204 inches.

The PLY DRY III product is manufactured at the Elkhart, IN facility.

3. INSTALLATION

PLY DRY III Roof Underlayment installation shall be fabricated, identified and installed in accordance with this report, the manufacturer's published installation instructions, and the applicable code. In the event of a conflict between the manufacturer's published installation instructions and this report, this report shall govern. The installation instructions shall be available at the point of installation.

PLY DRY III Roof Underlayment must be installed over solid sheathing. Minimum roof slope is 2:12 (17% slope). Roof slopes from 2:12 (17%) up to 4:12 (33%), where the roof is covered with asphalt shingles, double underlayment application is required.

EXCEPTION: Double underlayment application is not required on manufactured housing construction complying with 24 CFR §3280.

In high wind areas, PLY DRY III underlayment shall be applied with corrosion-resistant fasteners applied along the overlap, no more than 36 inches on center.

Prior to application, the deck surface shall be free of dust, dirt, loose nails, and other protrusions. Damaged sheathing shall be replaced. The underlayment is laid horizontally (parallel to eave) and may be installed with either side facing upward. For roof slopes from 2:12 (17%) up to 4:12 (33%), underlayment shall be applied in two layers with successive sheets overlapping a minimum of 19-inches. For roof slopes 4:12 (33%), or greater, underlayment shall be applied in one layer with successive sheets lapped a minimum of 2-inches. Overlaps shall run with the flow of water in a shingling fashion. The underlayment shall be fastened only as necessary to hold it in place.

In areas where a roof is required to have an ice barrier under the IBC or IRC, a self-adhering polymer modified bitumen sheet, complying with ASTM D1970 or the ICC-ES Acceptance Criteria for Severe Climate Underlayments (AC48), shall be applied. The ice barrier shall be applied over the solid substrate in sufficient courses equal to the distance inside the exterior wall line of the building that is specified in the appropriate section of the applicable code. The roof underlayment shall overlap the ice barrier.

Installation of the roof covering can proceed immediately following the underlayment application. The underlayment is intended for installation on factory built structures and the product must be covered by a roof covering or otherwise protected from the elements prior to leaving the production facility. Direct exposure to sunlight, wind, and/or rain shall be avoided during storage and prior to covering the underlayment with a roof covering. All factory installed underlayment exposed to the elements after installation must be covered by plastic or similar protection until roof covering is applied on-site.

4. EVIDENCE SUBMITTED

4.1. **TESTS** - The tests outlined in Table I were conducted on PLY DRY III underlayment samples taken from production material and the average results are listed. Testing conducted under the full test requirements for AC188, is accepted into this listing.

4.2. **QUALITY CONTROL** - The quality and process control system used in the manufacture of the product has been

submitted to RADCO. An Adequate method of traceability is maintained by the manufacturer. An audit program is maintained by RADCO.

- 4.3. **MARKINGS** - The material is shipped in rolls. Each roll carries a label as illustrated in Figure 1. The product name is PLY DRY III. The label indicates the RADCO listing number (listing #1343).

5. CONDITIONS OF USE

The roof underlayment described in this report complies with the codes listed in Section 1.0, subject to the following conditions:

- 5.1 Underlayment shall be fabricated, identified and installed in accordance with this listing, the manufacturer's published installation instructions, and the applicable code(s). In the event of a conflict between the manufacturer's published installation instructions and this listing, this listing shall govern. The installation instructions shall be available at the point of installation.
- 5.2 Underlayment must be fabricated in the facility listed in this report and under a quality control program by RADCO.
- 5.3 In the state of Florida factory built units must be approved, inspected, and built under Rule 9B-1, F.A.C.
- 5.4 Installation in manufactured housing complying with 24 CFR §3280 is subject to DAPIA review and approval prior to use.
- 5.5 Underlayment shall not be used in areas classified as High Velocity Hurricane Zones (Broward and Dade Counties) as indicated in the FLBC.
- 5.6 In the State of Florida this product shall only be used with other roof components, such as asphalt shingles, that are approved for use under Rule 9B-72, as applicable.
- 5.7 Installation is not permitted in classified roof assemblies where the classified assembly relies on the resistance of the underlayment for obtaining the assembly classification.
- 5.8 Installation is limited to roofing systems that do not involve hot asphalt or coal-tar pitch.
- 5.9 Underlayment is limited to use on roofs with a slope of 2:12 (16.67%) or greater.
- 5.10 Underlayment use is limited to roofs with ventilated attic spaces.
- 5.11 The underlayment is not to be exposed to more than incidental Ultraviolet Rays.
- 5.12 The underlayment is not to be used on substrates other than solid sheathing.
- 5.13 The underlayment must be mechanically fastened to the sheathing or rafters.
- 5.14 All rolls of approved material carry labels that provide the following information:

- a) the RADCO listing mark.
- b) RADCO's listing number: # 1343
- c) name and address of manufacturer
- d) product name and/or model number
- e) nominal thickness
- f) nominal width and length
- g) lot or batch number

6. APPROVAL

This listing is subject to an approval on an annual basis by RADCO. Updating of data and further information will be included and/or resubmitted as necessary.



LISTING NO. 1343
UFP Distribution LLC
2505 Marina Dr.
Elkhart, IN 4651
LOT #

Figure 1

Table I

Description	Test Method	Requirements
Pliability	ASTM D226	No cracking when bent 90/ at a uniform speed over a rounded corner of 1/2-inch radius.
Accelerated Aging	AC48, sec. 4.7	No visible damage such as chipping or cracking. No delamination. Additional testing for tensile strength and adhesion in peel.
Ultraviolet Exposure	AC48, sec 4.6	No visible damage such as chipping or cracking. No delamination. Additional testing for tensile strength and adhesion in peel.
Tensile Strength	AC48, sec 4.1, 4.7, 4.8	ASTM D 828 or D412: minimum 20 lbf/in-width. ASTM D1682: minimum 75 lbf. ASTM D1970: minimum 25 lbf/in-width
Liquid Water Transmission	ASTM D4869	Shall meet the "Pass" requirements of Section 8.3.5 of ASTM D4869.
Cycling and Elongation	AC48, sec 4.6	No cracking of the material or bond failure between the product and the plywood substrate.