

BUILDING PRODUCT LISTING PROGRAM

Class: PVC Roofing and Walking Deck Membrane

Customer: Duradek U.S. Inc.
Location: Surrey, British Columbia

Listing No. B1023-2
Project No. B1023-2, Edition 3
Effective Date: August 25, 2011
Last Revised: March 22, 2012
Expires: N/A

Product: Duradek Ultra - PVC Roofing and Walking Deck Membrane

Label: Each roll of Duradek Ultra is marked with a permanent label containing the following information:

- a) Manufacturers name or recognized trademark (Duradek)
- b) Address, including city and state of manufacture (Columbus, Mississippi)
- c) Product name or product number
- d) Product Order Number (PON) for traceability
- e) Roll length
- f) QAI logo with 'c' and 'us' indicators
- g) QAI file number: B1023
- h) Relevant standards: CAN/CGSB 37.54, ASTM E108, CAN/ULC S107, ANSI/SPRI ES-1, ASTM G155, CGSB 37-GP-52M, ANSI/FM 4474
- i) Type and class of the product in accordance with CAN/CGSB 37.54 (Type 3, Class B)

Duradek Ultra is approved for use with Duradek adhesives D811 and D763.
Adhesives are marked with:

- a) Listee name or recognized trademark (Duradek)
- b) Address, including city and country of manufacture
- c) Product name or designation (D811 or D763)
- d) Batch number keyed to the date of manufacture
- e) Product expiration date
- f) Quantity of adhesive

Standards: CAN/CGSB-37.54 "Polyvinyl Chloride Roofing and Waterproofing Membrane"
ASTM E108 "Standard Test Methods for Fire Tests of Roof Coverings"
CAN/ULC S107 "Methods of Fire Tests of Roof Coverings"
ANSI/SPRI ES-1 "Wind Design Standard for Edge Systems Used with Low Slope Roofing Systems"
ASTM G155 "Standard Practice for Operating Xenon Arc Light Apparatus for Exposure of Non-Metallic Materials"
CGSB 37-GP-52M "Roofing and Waterproofing Membrane, Sheet Applied, Elastomeric" (for impact resistance only)
ANSI/FM 4474 "Evaluating the Simulated Wind Uplift Resistance of Roof Assemblies Using Static Positive and/or Negative Differential Pressures"

Models: Duradek Ultra is a polyvinyl chloride (PVC) roofing and walking deck covering membrane with a 1.5mm (60mil) nominal thickness and a laminated, heat-set, polyester fabric attached to the back. The surface is embossed to provide a textured finish. The product is manufactured in rolls that are 54 inches or 72 inches wide. The product is available in various colours and textures.

The product is intended to be used as a waterproof membrane that is fully adhered to a continuous solid substrate such as plywood or cement board. The membrane is intended to be fully adhered to the substrate with Duradek adhesives D763 or D811 applied in accordance with the Duradek published installation instructions. The product is intended for use in areas that are subject to traffic loads generated by residential occupancies only. The product is not intended specifically for resistance to chemical attack or spillage. The product is intended to be installed on a minimum slope of 1:48 for water drainage. All joints are lapped 3/4" (minimum); the product is not intended to be installed with butt seam joints.

Results: The Duradek Ultra product is considered a Type 3, Class B membrane in accordance with CAN/CGSB-37.54.

The Duradek Ultra product achieved a Class A Rating in accordance with ASTM E108 and CAN/ULC S107 when installed as follows:

- Deck Slope: 1/4 : 12
- Deck: 5/8" thick, Douglas fir plywood, tongue and groove joint.
1/2" thick USG/CGC "Durock Next Gen" cement board applied to the plywood top surface using Mapei "Ultra Flex 2" polymer modified mortar and screwed 6" on center around the perimeter of each cement board with Rock-On #9 Hi-Lo thread 1-1/4" screws.
- Membrane: Duradek Ultra membrane, 60mil nominal thickness, fully adhered to cement board with Duradek D811 or Duradek D763 adhesive applied per Duradek installation instructions.

The Duradek 2-1/4" x 3-1/4" PVC Metal Roof Edge Flashing system was able to achieve a maximum test pressure of 305 psf, using a factor of safety of 2, when tested to ANSI/SPRI ES-1 (Test RE-2) 'Pull-off Test for Edge Flashings' and when installed in accordance with the manufacturer's recommended installation instructions.

The Duradek Ultra product did not show any surface deterioration and there was no loss in tensile strength after 2000 hours of weathering in accordance with ASTM G155.

The Duradek Ultra product met the impact resistance requirements from CGSB standard 37-GP-52M.

When tested to ANSI/FM 4474, Appendix B 'Simulated Wind Uplift Pull Test Procedure', the Duradek Ultra product achieved the results below:

System No.	Substrate ^{3,4}	Adhesive ⁵	Maximum Allowable Wind Uplift (psf) ^{1,2}
1	Cement board	Duradek D763	200
2	Cement board	Duradek D811	200
3	Plywood	Duradek D763	200
4	Plywood	Duradek D811	240

¹ A factor of safety of 2 is applied to the maximum allowable wind uplift results.

² The wind uplift test results can be related to the adhesion of the membrane to the substrate only. Results are not an indication of the bond of the substrate to the substructure and are not an indication of the strength of the deck substructure. The deck and framing to which the Duradek Ultra system is adhered must be designed for the applicable components and wind loads in accordance with the applicable code.

³ Plywood is minimum 5/8-inch-thick exterior-grade with tongue-and groove edges, complying with recognized standards.

⁴ Cement board is 'USG Durock Cement Board Next Gen' minimum 1/2-inch-thick (nominal).

⁵ Adhesive must be applied in accordance with the manufacturer's published installation instructions.

Note: Products must be installed with the manufacturer's published installation instructions and in accordance with the building codes recognized by the authority having jurisdiction.
