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Legacy report on the 2000 International Building Code®, the 2002 Accumulative Supplement to the International Codes™, the BOCA® National Building Code/1999, the 1999 Standard Building Code®, the 1997 Uniform Building Code™, and the 2000 International Residential Code®

DIVISION 06 - WOOD AND PLASTICS
Section 06500 - Structural Plastics

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1.0 SUBJECT

- 1.1 Perma-Poly™ Lumber Plastic Decking
1.2 EVOLVE® Lumber Plastic Decking

2.0 PROPERTY FOR WHICH EVALUATION IS SOUGHT

Structural

3.0 DESCRIPTION

3.1 General

RENEW Plastics' Perma-Poly™ and EVOLVE® Lumber Plastic Decking are used as a flooring or non-structural trim components for exterior balconies, porches, decks, and other exterior walking surfaces where combustible construction is permitted. Perma-Poly™ and EVOLVE® are the same product with different names for marketing purposes. Perma-Poly™ and EVOLVE® is a plastic composite material that consists of at least 90% recycled Type 2 High Density Polyethylene (HDPE) with the remainder of material being foaming agents and color with UV inhibitors. The HDPE composite material is manufactured by a continuous extrusion process in accordance with the listed quality control manual to produce comparable lumber-sized members with nominal sizes as listed in Table 1 of this report.

3.2 Structural

Table 1 lists the allowable spans of Perma-Poly™ and EVOLVE® Lumber used as decking (flat-wise bending).

4.0 INSTALLATION

The manufacturer's published installation instructions and this report shall be strictly adhered to and a copy available on the jobsite at all times during installation. The installation instructions within this report govern if there are any conflicts between the manufacturer's published installation instructions and this report.

TABLE 1
MAXIMUM ALLOWABLE SPANS1,2,3

Table with 3 columns: LUMBER SIZE (inches), MAXIMUM UNIFORM LOAD 40 psf, MAXIMUM UNIFORM LOAD 100 psf. Rows include sizes like 3/4 x 5 1/2, 3/4 x 6, 1 x 5 1/2, 1 1/2 x 3 1/2, 1 1/2 x 5 1/2.

SI: 1 inch = 25.4 mm, 1 psf = 47.88 Pa

- 1. Spans are for members used as planking (flat-wise bending).
2. Members shall be supported by a minimum of three joist (2 spans) and shall be fastened at each joist.
3. Use of members as stair treads is outside the scope of this table.

5.0 IDENTIFICATION

Perma-Poly™ and EVOLVE® Lumber Plastic Decking planks shall be labeled with the manufacturer's name and/or trademark, the product name, the name and/or trademark of the third party inspection agency (Intertek) and this evaluation report number.

6.0 EVIDENCE SUBMITTED

- 6.1 Manufacturer's descriptive literature and installation instructions.

ICC-ES legacy reports are not to be construed as representing aesthetics or any other attributes not specifically addressed, nor are they to be construed as an endorsement of the subject of the report or a recommendation for its use. There is no warranty by ICC Evaluation Service, Inc., express or implied, as to any finding or other matter in this report, or as to any product covered by the report.



- 6.2** Test report on EVOLVE® Lumber in accordance with ASTM D 6662, prepared by Intertek Testing Services, Report No. 3022869, dated January 9, 2003, Revised January 17, 2003, signed by Kazamir L. Falconbridge and Cameron Robinson.
- 6.3** Test report on Fire Retardancy Test of a RENEW Plastics Lumber Decking Boards, prepared by Intertek Testing Services, Report No. 3025606, dated June 10, 2002, signed by Kent Kelsey and Rick Curkeet.
- 6.4** Quality Control/Factory Audit Manual for EVOLVE® or Perma-Poly™ Recycled Plastic Lumber, dated November 2002, Revised December 19, 2003, signed by Lynie Vincent (RENEW Plastics) and Mike Van Geyn (Intertek Testing).
- 6.5** Letter on equivalency of product sizes, prepared by Intertek Testing Services, dated February 25, 2003, signed by Chris Bowness and Francis Roma.
- 6.6** Test report on Standard Flame Spread Test Program in accordance with ASTM E 84, prepared by Intertek Testing Services, Report No. 3031070, dated August 30, 2002, signed by Greg Philp and Michael van Geyn.
- 6.7** Span length calculations for 40 psf and 100 psf at 130°F, prepared by Intertek Testing Services, Project 3022869, dated July 30, 2003, signed and sealed by Cameron Robinson, P.Eng.
- 7.0** **CONDITIONS OF USE**
- 7.1** Perma-Poly™ and EVOLVE® Lumber Plastic Decking shall be limited to exterior applications where combustible construction is permitted.
- 7.2** Use of Perma-Poly™ and EVOLVE® Lumber Plastic Decking in applications where fire-rated construction is required is outside the scope of this report.
- 7.3** Perma-Poly™ and EVOLVE® Lumber shall be gapped to permit adequate drainage in accordance with the manufacturer's instructions.
- 7.4** Perma-Poly™ and EVOLVE® Lumber shall not be attached to any solid surface or watertight flooring system, such as sheathing, waterproof membranes, concrete, roof decks, or patios.
- 7.5** Use of Perma-Poly™ and EVOLVE® Lumber in applications where the code requires solid-sawn lumber to be naturally durable or preservative-treated is outside the scope of this report.
- 7.6** Use of Perma-Poly™ and EVOLVE® Lumber for single span applications is outside the scope of this report.
- 7.7** Perma-Poly™ and EVOLVE® Lumber shall be fastened directly to floor joists having adequate strength and stiffness in accordance with the applicable code.
- 7.8** Perma-Poly™ and EVOLVE® Lumber shall not be used in applications that will cause the temperature of the board to exceed 130°F (54°C).
- 7.9** This report is subject to periodic re-examination. For information on the current status of this report, consult the ICC-ES website.

The ICC-ES Subcommittee for the National Evaluation Service, Inc. finds that the application of Perma-Poly™ and EVOLVE® Lumber Plastic Decking as described in this report complies with or is a suitable alternate to the materials prescribed in the 2000 International Building Code®, the 2002 *Accumulative Supplement to the International Codes*™, the BOCA® *National Building Code*/1999, the 1999 *Standard Building Code*®, the 1997 *Uniform Building Code*™, and the 2000 *International Residential Code*® subject to the following conditions: