

ICC-ES Evaluation Report

ESR-2697

Reissued April 1, 2010

This report is subject to re-examination in two years.

www.icc-es.org | (800) 423-6587 | (562) 699-0543

A Subsidiary of the International Code Council®

DIVISION: 07—THERMAL AND MOISTURE PROTECTION
Section: 07180—TRAFFIC COATINGS

REPORT HOLDER:

PACIFIC POLYMERS, INC.
12271 MONARCH STREET
GARDEN GROVE, CALIFORNIA 92841
(714) 898-0025
www.pacpoly.com

EVALUATION SUBJECT

ELASTO-DECK 5000 FR WALKING AND ROOF DECK
SYSTEM

1.0 EVALUATION SCOPE

Compliance with the following codes:

- 2009 *International Building Code*® (2009 IBC)
- 2009 *International Residential Code*® (2009 IRC)
- 2006 *International Building Code*® (2006 IBC)
- 2006 *International Residential Code*® (2006 IRC)

Properties evaluated:

- Fire classification
- Durability
- Wind resistance

2.0 USES

Elasto-Deck 5000 FR is a walking deck and roof covering system for use directly over plywood or concrete substrates. When installed in accordance with this report, Elasto-Deck 5000 FR has a Class A roof classification.

3.0 DESCRIPTION

3.1 Substrates:

3.1.1 Plywood: Plywood substrates must be exterior-grade, minimum $\frac{3}{4}$ -inch-thick (19.05 mm) plywood with tongue-and-groove edges, complying with U.S. DOC PS-1.

3.1.2 Concrete: Structural normal-weight concrete decks must comply with the applicable code and must have a minimum compressive strength of 2000 psi. (13.78 MPa).

3.2 Materials:

3.2.1 Elasto-Poxy Primer: Elasto-Poxy Primer is a two-part, water-based liquid primer used in the Elasto-Deck 5000 FR system. Parts A and B must be mixed separately, then combined in equal volumes and mixed thoroughly.

The mixture may be applied by spray, brush or roller, and has a pot life of approximately one hour at 75°F (23.8°C). The components are available in 1.5- and 4.5-gallon (5.7 and 17 L) pails, and have a shelf life of one year when stored in unopened containers at temperatures between 50°F (10°C) and 80°F (26.7°C).

3.2.2 Elasto-Deck 5001: Elasto-Deck 5001 is a liquid-applied, moisture-cured, polyurethane waterproofing basecoat used in the Elasto-Deck 5000 FR system. Elasto-Deck 5001 must be applied by spray, brush or rollers. The Elasto-Deck 5001 is available in 5-gallon (18.9 L) containers and has a shelf life of six months when stored in unopened containers at a temperature between 65°F (18.3°C) and 77°F (25°C).

3.2.3 Aggregate (Monterey Sand): Monterey Sand is a natural sand with a mesh size ranging from No. 16 to No. 20 and is packaged in 100-pound (45.6 kg) bags.

3.2.4 Elasto-Glaze 6001 AR: Elasto-Glaze 6001 is an aromatic, liquid-applied, moisture-cured, polyurethane topcoat used in the Elasto-Deck 5000 FR system, and applied after the aggregate coat. Elasto-Glaze 6001 AR is available in 5-gallon (18.9 L) pails and has a shelf life of six months when stored in unopened containers at temperatures between 65°F (18.3°C) and 77°F (25°C).

3.2.5 Elasto-Glaze 6001 AL: Elasto-Glaze 6001 AL is an aliphatic, liquid-applied, moisture-cured, polyurethane sealer coat used in the Elasto-Deck 5000 FR system. Elasto-Glaze 6001 AL is available in 5-gallon (18.9 L) pails and has a shelf life of six months when stored in unopened containers at temperatures between 65°F (18.3°C) and 77°F (25°C).

3.2.6 Reinforcing Tape: The Pacific Polymers reinforcing tape is a 4-inch-wide (102 mm) glass cloth tape.

4.0 INSTALLATION

4.1 General:

Installation of the Elasto-Deck 5000 FR walking and roof deck system must be in accordance with the manufacturer's published installation instructions, the applicable code and this report. The manufacturer's published installation instructions must be available on the jobsite at all times during application. The coatings must be applied when the ambient temperature is above 50°F (10°C) and materials must not be applied if precipitation is occurring or expected within 24 hours of application.

4.2 Preparation of Substrates:

4.2.1 Plywood: Plywood substrates must be structurally sound, clean and dry, and free of oil, grease, paint and

dust, and must be installed to framing in accordance with applicable code. The substrate must be sloped a minimum of $\frac{1}{4}$ inch per foot (2% slope) for proper drainage. Plywood joints and planar depressions must be filled with Elasto-Deck 5001. A minimum 5-inch-wide (127 mm) coat of Elasto-Deck 5001 is applied over the joint, and the reinforcing tape is laid into the coating. The materials must be allowed to dry a minimum of 30 minutes before application of the primer and base coats. All through-penetrations and terminations of the sheathing must be protected with metal flashing in accordance with the applicable code and the manufacturer's published installation instructions.

4.2.2 Concrete: Surfaces must be clean and free of standing water. Structural concrete substrates must be structurally sound, clean, dry, and free of oil, grease, paint and dust. All holes, joints and cracks must be pointed flush with portland cement mortar and all high spots cut or ground off to provide a smooth, even surface. The substrate must be sloped a minimum of $\frac{1}{4}$ inch per foot (2% slope) for proper drainage. All joints, cracks and changes of plane must be treated as described for plywood joints in Section 4.2.1.

4.3 Primer Coat:

Elasto-Poxy primer is applied to the plywood or concrete substrate in accordance with the manufacturer's installation instructions, at a rate of 0.4 gallon per 100 square feet (9.3 m²).

4.4 Base Coat:

The Elasto-Deck 5001 base coat must be applied to the substrate at a coverage rate of 2 gallons per 100 square feet (0.815 L/m²), resulting in a dry-film thickness of approximately 25 mils (0.63 mm). The coating must be allowed to dry a minimum of 16 hours at 75°F (23.9°C) prior to application of the aggregate coat.

4.5 Aggregate Coat:

The aggregate coat is applied over the base coat with a trowel or roller, at a coverage rate of 100 pounds per 100 square feet (4.898 kg/m²), resulting in a wet-film thickness of approximately 32 mils (0.81 mm). The coating must be allowed to dry a minimum of 16 hours at 75°F (23.9°C) prior to application of the top coat.

4.6 Top Coat:

Elasto-Glaze 6001 AR top coat must be applied over the aggregate coat at a coverage rate of 1 gallon per 100 square feet (0.4 L/m²), resulting in a dry-film thickness of approximately 11 mils (0.28 mm). The coating must be allowed to dry a minimum of 16 hours prior to application of the sealer coat.

4.7 Sealer Coat:

Elasto-Glaze 6001 AL sealer coat must be applied over the top coat at a coverage rate of 0.90 gallon per 100 square

feet (0.37 L/m²), resulting in a dry-film thickness of approximately 8.5 mils (0.21 mm). The coating must be allowed to dry a minimum of 96 hours.

4.8 Method of Repair:

The damaged area must be cleared of all existing material and the materials replaced in the manner described in Sections 4.2 through 4.7. When substrate damage occurs, the retention of strength properties must be investigated and the results submitted to the code official.

4.9 Roof Classification:

When the Elasto-Deck 5000 FR Walking and Roof Deck System is installed as described in Sections 4.1 through 4.7, at a maximum slope of $\frac{1}{4}$ inch per foot (2% slope), the system has a Class A roof classification.

4.10 Wind Resistance:

The roof deck construction over which the fully bonded coatings are applied must be designed to resist the design wind uplift pressures set forth in the applicable code.

5.0 CONDITIONS OF USE

The Elasto-Deck 5000 FR Walking and Roof Deck System described in this report complies with, or is a suitable alternative to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

- 5.1 Installation must comply with this report, the manufacturer's published installation instructions and the applicable code. If there is a conflict between the manufacturer's installation instructions and this report, this report governs.
- 5.2 The deck on which the coating system is installed must be designed to resist the design wind pressure of the applicable code.
- 5.3 The products are manufactured at Garden Grove, California, under a quality control program with inspections by Ramtech Laboratories (AA-655).

6.0 EVIDENCE SUBMITTED

Data in accordance with the ICC-ES Acceptance Criteria for Walking Decks (AC39), dated February 2010.

7.0 IDENTIFICATION

All Pacific Polymers, Inc., components of the Elasto-Deck 5000 FR Walking and Roof Deck System must be identified with a label bearing the manufacturer's name (Pacific Polymers, Inc.) and address; the product name, shelf life, and date of manufacture; the name of the inspection agency (Ramtech Laboratories); and the evaluation report number (ESR-2697).