

# ICC-ES Evaluation Report

**ESR-1140**

Reissued July 1, 2011

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**DIVISION: 06 00 00—WOOD, PLASTICS AND  
COMPOSITES****Section: 06 05 23.10—Adhesives****REPORT HOLDER:****ASHLAND SPECIALTY CHEMICAL COMPANY  
5200 BLAZER PARKWAY  
DUBLIN, OHIO 43017****EVALUATION SUBJECT:****ISOGRIP® ADHESIVES:****SP 2000D SERIES: SP 2020D, SP 2025D, SP 2030D****SP 3000D SERIES: SP 3020D, SP 3030D****SP 4000D SERIES: SP 4010D, SP 4020D****SP 5000D SERIES: SP 5000D, SP 5040D, SP 5050D, and  
SP 5100D****1.0 EVALUATION SCOPE**

Compliance with the following codes:

- 2009 and 2006 *International Building Code*®
- 2009 and 2006 *International Residential Code*®

**Property evaluated:**

Structural adhesives

**2.0 USES**

Isogrip® adhesives are used in the fabrication of laminated sandwich panels.

**3.0 DESCRIPTION**

The Isogrip® adhesives are one-part polyurethane adhesives used for bonding gypsum wallboard, mineral board, oriented strand board, plywood, fiberglass or metal to core materials of polystyrene and polyurethane foam plastics, and paper honeycomb materials, in laminated sandwich panel construction. These are Type II, Class 2, adhesives for structural use where high resistance to moisture is required in roof, wall and floor sandwich panels subject to sustained loadings.

The adhesives are available in 5-gallon (18.9 L) steel pails, 55-gallon (208 L) steel drums and 330-gallon (1250 L) totes. When stored in original unopened containers at temperatures between 45°F and 75°F (7.2°C and 23.9°C), the products have a shelf life of 90 days.

**4.0 INSTALLATION**

Surfaces to be bonded shall be clean and dry. Dust, oil, grease, water, paint and any other contaminants shall be removed prior to application of the adhesive. The amount of adhesive to be applied to contact surfaces must comply with the adhesive manufacturer's instructions. To ensure adhesion, the surfaces must be placed under pressure in accordance with the published instructions of Ashland Specialty Chemical Company.

The adhesives must be applied to one of the substrates to be bonded using roll coating, extruding techniques, or a swirl coater. The adhesives must be misted with water prior to covering with the other substrate being bonded.

Use of the adhesives must be in accordance with the provisions of the "ISOGRIP Adhesive Laminating Guide for Structural and Architectural Panels," as follows:

- ISOGRIP® SP 2020D, dated June 2000
- ISOGRIP® SP 2025D, dated April 2005
- ISOGRIP® SP 2030D, dated June 2000
- ISOGRIP® SP 3020D, dated December 1999
- ISOGRIP® SP 3030D, dated June 2000
- ISOGRIP® SP 4010D, dated May 1999
- ISOGRIP® SP 4020D, dated June 2000
- ISOGRIP® SP 5000D, dated April 2003
- ISOGRIP® SP 5040D, dated July 2003
- ISOGRIP® SP 5050D, dated July 2003
- ISOGRIP® SP 5100D, dated April 2003

**5.0 CONDITIONS OF USE**

The ISOGRIP® SP 2000D, SP 3000D, SP 4000D, and SP 5000D series adhesives described in this report comply with, or are suitable alternatives to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

- 5.1** The adhesive system must be applied and cured in accordance with this report and the manufacturer's instructions.
- 5.2** The adhesive application is limited to use in sandwich panels specifically recognized in an ICC-ES evaluation report.

- 5.3** Based on creep test results, the maximum allowable design shear stress for the ISOGRIP polyurethane adhesive is 100 lbf/in<sup>2</sup> (689 kPa).
- 5.4** The adhesives are manufactured under a quality control program with inspections conducted by Intertek Testing Services, Inc. (AA-690).

#### **6.0 EVIDENCE SUBMITTED**

Data in accordance with the ICC-ES Acceptance Criteria for Sandwich Panel Adhesives (AC05), dated June 2009.

#### **7.0 IDENTIFICATION**

Each container of adhesive has a label noting the date of manufacture, the ICC-ES report number (ESR-1140), the product name, the name of the manufacturer (Ashland Specialty Chemical Company) and the name of the inspection agency (Intertek Testing Services, Inc.).