



ACCEPTANCE CRITERIA FOR VINYL SIDING

AC37

Approved December 2006

Effective January 1, 2007

**Previously approved September 2003, January 2002, January 2001,
April 1996, July 1994, April 1991**

PREFACE

Evaluation reports issued by ICC Evaluation Service, Inc. (ICC-ES), are based upon performance features of the International family of codes and other widely adopted code families, including the Uniform Codes, the BOCA National Codes, and the SBCCI Standard Codes. Section 104.11 of the *International Building Code*® reads as follows:

The provisions of this code are not intended to prevent the installation of any materials or to prohibit any design or method of construction not specifically prescribed by this code, provided that any such alternative has been approved. An alternative material, design or method of construction shall be approved where the building official finds that the proposed design is satisfactory and complies with the intent of the provisions of this code, and that the material, method or work offered is, for the purpose intended, at least the equivalent of that prescribed in this code in quality, strength, effectiveness, fire resistance, durability and safety.

Similar provisions are contained in the Uniform Codes, the National Codes, and the Standard Codes.

This acceptance criteria has been issued to provide all interested parties with guidelines for demonstrating compliance with performance features of the applicable code(s) referenced in the acceptance criteria. The criteria was developed and adopted following public hearings conducted by the ICC-ES Evaluation Committee, and is effective on the date shown above. All reports issued or reissued on or after the effective date must comply with this criteria, while reports issued prior to this date may be in compliance with this criteria or with the previous edition. If the criteria is an updated version from the previous edition, a solid vertical line (|) in the margin within the criteria indicates a technical change, addition, or deletion from the previous edition. A deletion indicator (→) is provided in the margin where a paragraph has been deleted if the deletion involved a technical change. This criteria may be further revised as the need dictates.

ICC-ES may consider alternate criteria, provided the report applicant submits valid data demonstrating that the alternate criteria are at least equivalent to the criteria set forth in this document, and otherwise demonstrate compliance with the performance features of the codes. Notwithstanding that a product, material, or type or method of construction meets the requirements of the criteria set forth in this document, or that it can be demonstrated that valid alternate criteria are equivalent to the criteria in this document and otherwise demonstrate compliance with the performance features of the codes, ICC-ES retains the right to refuse to issue or renew an evaluation report, if the product, material, or type or method of construction is such that either unusual care with its installation or use must be exercised for satisfactory performance, or if malfunctioning is apt to cause unreasonable property damage or personal injury or sickness relative to the benefits to be achieved by the use of the product, material, or type or method of construction.

Copyright © 2007

ACCEPTANCE CRITERIA FOR VINYL SIDING

1.0 INTRODUCTION

1.1 Purpose: The purpose of this acceptance criteria is to establish requirements for vinyl siding to be recognized in an ICC Evaluation Service, Inc. (ICC-ES), evaluation report under the 2006 *International Building Code*® (IBC), the 2006 *International Residential Code*® (IRC), the BOCA® *National Building Code/1999* (BNBC), the 1999 *Standard Building Code*® (SBC) and the 1997 *Uniform Building Code*™ (UBC). Bases of recognition are IBC Section 1404.9, IRC Section R703.4, BNBC Section 106.4, SBC Section 103.7 and UBC Section 104.2.8.

The reason for development of this criteria is to establish requirements for the legacy codes based on requirements in the current International Codes, to clarify requirements for wind load testing when the code-prescribed minimums are exceeded, and to address requirements of the IBC that the siding materials be certified and labeled as conforming to ASTM D 3679.

1.2 Scope:

1.2.1 This acceptance criteria is for vinyl siding complying with ASTM D 3469 and is limited to vinyl siding located on exterior walls of Type V construction in jurisdictions using the IBC and the BNBC, unless there is compliance with Section 3.4 of this evaluation guideline. This acceptance criteria is also limited to vinyl siding located on exterior walls of Type V construction in jurisdictions using the UBC, and to vinyl siding located on exterior walls of Type VI construction in jurisdictions using the SBC.

This acceptance criteria is also for vinyl siding complying with ASTM D 3469 located on exterior walls of any type of construction in jurisdictions using the IRC.

1.2.2 This guideline establishes wind load criteria for the IBC, IRC, BNBC, SBC and UBC.

1.3 Reference Standards:

1.3.1 2006 *International Building Code*® (IBC), International Code Council.

1.3.2 2006 *International Residential Code*® (IRC), International Code Council.

1.3.3 BOCA® *National Building Code/1999* (BNBC).

1.3.4 1999 *Standard Building Code*® (SBC).

1.3.5 1997 *Uniform Building Code*™ (UBC).

1.3.6 ASTM D 3679-04, Specification for Rigid Poly (Vinyl Chloride) (PVC) Siding, ASTM International.

1.3.7 ASTM D 4756-02, Practice for Installation of Rigid Poly (Vinyl Chloride) (PVC) Siding and Soffit, ASTM International.

1.3.8 ASTM D 5206-96(2002), Test Method for the Wind Load Resistance of Rigid Poly (Vinyl Chloride) (PVC), Siding, ASTM International.

1.3.9 NFPA 268-01, Standard Test Method for Determining Ignitability of Exterior Wall Assemblies Using Radiant Heat Energy Source, National Fire Protection Association, Inc.

2.0 BASIC INFORMATION

The applicant for an evaluation report concerning vinyl siding shall submit the following:

2.1 General:

2.1.1 Product Description: Complete information concerning material specifications, thickness, size and the manufacturing process.

2.1.2 Installation Instructions: Installation details and limitations, fastening methods, joint treatments and face treatments. Installation instructions shall be in accordance with ASTM D 4756.

2.1.3 Packaging and Identification: A description of the method of packaging and field identification of the siding. Identification provisions shall include the requirements of Section 7 of ASTM D 3679, the evaluation report number, and (when recognition under the UBC is considered) the words "conforms to UBC Standard 14-2."

2.1.4 Field Preparation: A description of the methods of field-cutting, application and finishing.

2.2 Testing Laboratories and Reports of Tests:

2.2.1 Testing laboratories shall comply with Section 2.0 of the ICC-ES Acceptance Criteria for Test Reports (AC85) and Section 4.2 of the ICC-ES Rules of Procedure for Evaluation Reports.

2.2.2 Test reports shall comply with AC85. Test reports shall include test specimen description, details of the test method, manner of testing, test results, calculated results, and photographs, when necessary. The test reports shall also include information required by the applicable ASTM or UBC standard.

2.2.3 Sampling of the vinyl siding for tests under this criteria shall comply with Section 3.1 of AC85.

3.0 PERFORMANCE REQUIREMENTS FOR VINYL SIDING

3.1 General: The siding shall conform to the requirements of ASTM D 3679.

Installation shall comply with ASTM D 4756. Installation shall also comply with Section 1405.13 of the IBC, Section R703 of the IRC, Section 1406.3.3 of the BNBC, Section 1403.9 of the SBC, and Section 1404 of the UBC, for recognition under the respective codes, except where wind loads in excess of the code-prescribed minimums are sought.

3.2 Wind Loads under the IBC, BNBC, SBC and UBC: Where installation complies with the prescriptive requirements of IBC Section 1405.13, BNBC Section 1406.3.3, SBC Section 1403.9 or UBC Section 1404, as applicable, use of the siding shall be limited to areas where the basic wind speed (3-second gust) does not exceed 100 miles per hour (161 km/h), and the building height is less than or equal to 40 feet (12 192 mm) in Exposure C.

For applications in excess of the prescriptive requirements, negative wind load resistance tests shall be conducted in accordance with ASTM D 5206. The installation method must be superior to the prescriptive installation method in the applicable code. The test assembly shall be constructed in a manner consistent with the construction methods and materials that are to be recognized in the evaluation report. Allowable wind pressures shall be determined in accordance with Annex A1 of ASTM D 3679.

ACCEPTANCE CRITERIA FOR VINYL SIDING

Positive wind loading is not considered, since the siding shall be applied over solid sheathing capable of resisting design wind pressures. Where construction is located in areas where the basic wind speed (3-second gust) does not exceed 100 miles per hour (161 km/h) and the building heights do not exceed 40 feet (12 192 mm), solid sheathing, as noted in Section 1405.13.1 of the IBC, Section 2305.8.1 of the BNBC, Section 2308.2 of the SBC, and Section 1404.2 of the UBC, is acceptable.

3.3 Wind Loads under the IRC: When installed in accordance with IRC Table R703.4, basic wind speed (3-second gust) shall be less than 110 mph (177 km/h).

For basic wind speeds equal to or greater than 110 mph (177 km/h), design shall be in accordance with Section R301.2.1.1 of the IRC, and wind load resistance tests shall be conducted in accordance with ASTM D 5206. The test assembly shall be constructed in a manner consistent with the construction methods and materials that are to be recognized in the evaluation report. Allowable negative wind pressures shall be determined in accordance with Annex A1 of ASTM D 3679.

Positive wind loading is not considered, since the siding shall be applied over solid sheathing capable of resisting design wind pressures. Where construction is located in areas where the basic wind speeds is less than 110 mph (177 km/h), sheathing as noted in Table R703.4 of the IRC is acceptable.

3.4 Ignition Resistance: For recognition under the IBC and BNBC, for construction other than Type V, the siding shall comply with Section 1406.2 of the IBC and Section 1407.2.1 of the BNBC. For SBC compliance, exterior walls shall not exhibit sustained flaming where tested in accordance with NFPA 268.

4.0 QUALITY CONTROL

4.1 The vinyl siding shall be manufactured under a quality control program with inspections by an inspection agency accredited by the International Accreditation Service (IAS) or otherwise acceptable to ICC-ES.

4.2 Quality control documentation complying with the ICC-ES Acceptance Criteria for Quality Documentation (AC10) shall be submitted.■