



ICC Evaluation Service, Inc.

Ensuring that building products meet code requirements

**Open Meeting to Discuss Preparation
of Materials for Submittal to
ICC Evaluation Service, Inc.**



Purpose

- Overview of the International Code Council (ICC) and ICC Evaluation Service (ICC-ES).
- The purpose of ICC and ICC-ES.
- Help our constituents understand the process.
- Identify points in the process that can cause delays.
- Offer suggestions for preparing application submittal package.



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The International Code Council® (ICC)

- The ICC is a membership association governed by code officials that is dedicated to building safety and fire prevention.
- The ICC develops the codes used to construct buildings of all occupancy types.
- Most U.S. cities, counties and states that adopt codes choose the International Codes developed by the ICC.



Brief History of the ICC

- Established in 1994.
- Founding members were BOCA International, SBCCI and ICBO.
- February 1, 2003, founding members ceased operations & ICC became a single, unified entity.
- Current membership in excess of 50,000 consisting of code officials, design professionals, academia, manufacturers and others in the enforcement, design and construction industry.

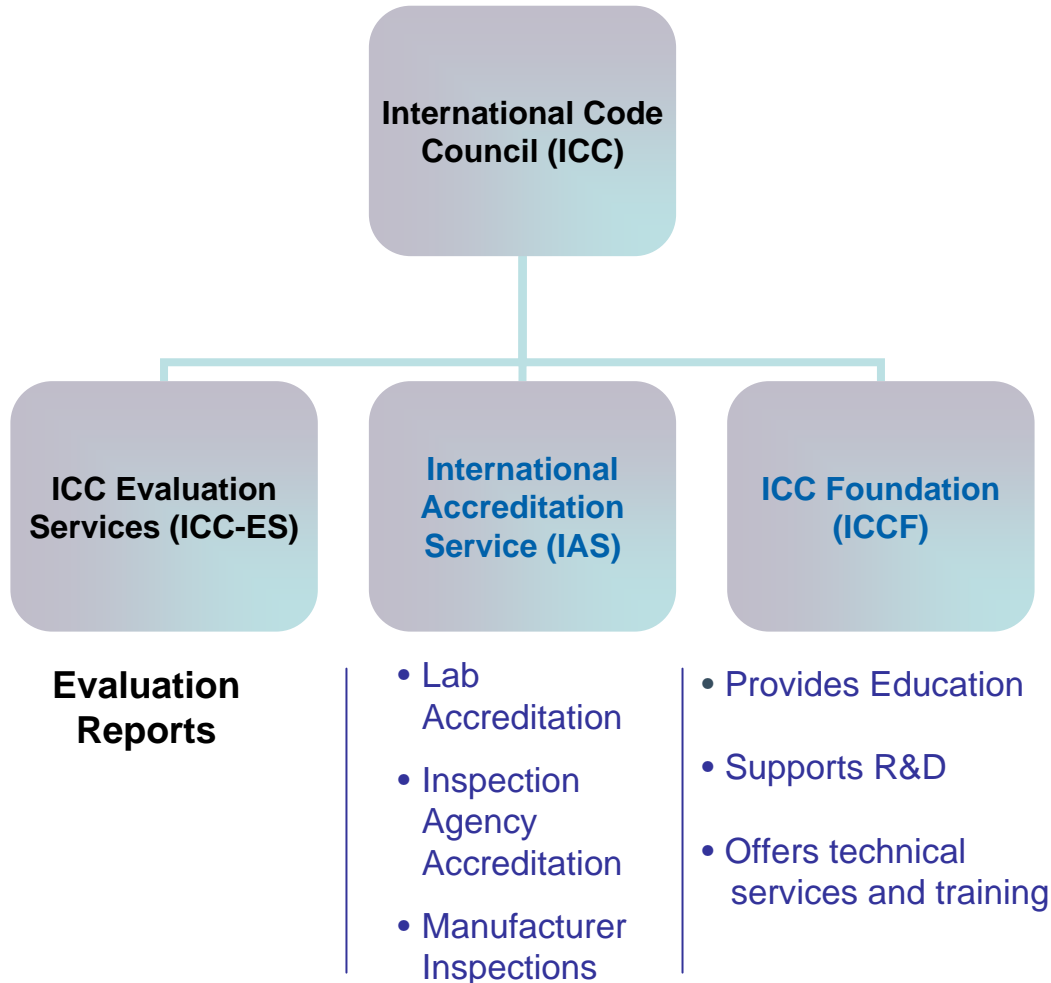


Brief History of the ICC (cont.)

- Headquarters in Washington, D.C.
- 3 District offices in Chicago, IL, Birmingham, AL and Los Angeles, CA.
- Several regional Resource Centers across the United States.
- Promulgates the entire family of International Codes.
- Has 3 subsidiary companies
 - ICC Evaluation Service, Inc.
 - International Accreditation Service, Inc.
 - ICC Foundation



Brief History of the ICC





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ICC Evaluation Service, Inc. (ICC-ES)

Who is ICC-ES?

- ICC-ES is a subsidiary of the ICC that members have created to serve as a major link between building officials and industry so that manufacturers can present evidence of code compliance to ICC-ES (one agency) rather than to many individual building departments.
- ICC-ES is a product evaluation service and is the United States' leader in evaluating building products for compliance with code.
- ICC-ES is a nonprofit, public-benefit corporation that performs technical evaluations of building products, components, methods, and materials.



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ICC Evaluation Service, Inc. (ICC-ES)

Who is ICC-ES?

- The ICC-ES evaluation process culminates with the issuance of evaluation reports that provide evidence that the subject products or systems meet code requirements.
- Evaluation reports are made available free of charge to code officials, contractors, design professionals, and anyone else with an interest in the building industry and construction.



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ICC Evaluation Service, Inc. (ICC-ES)

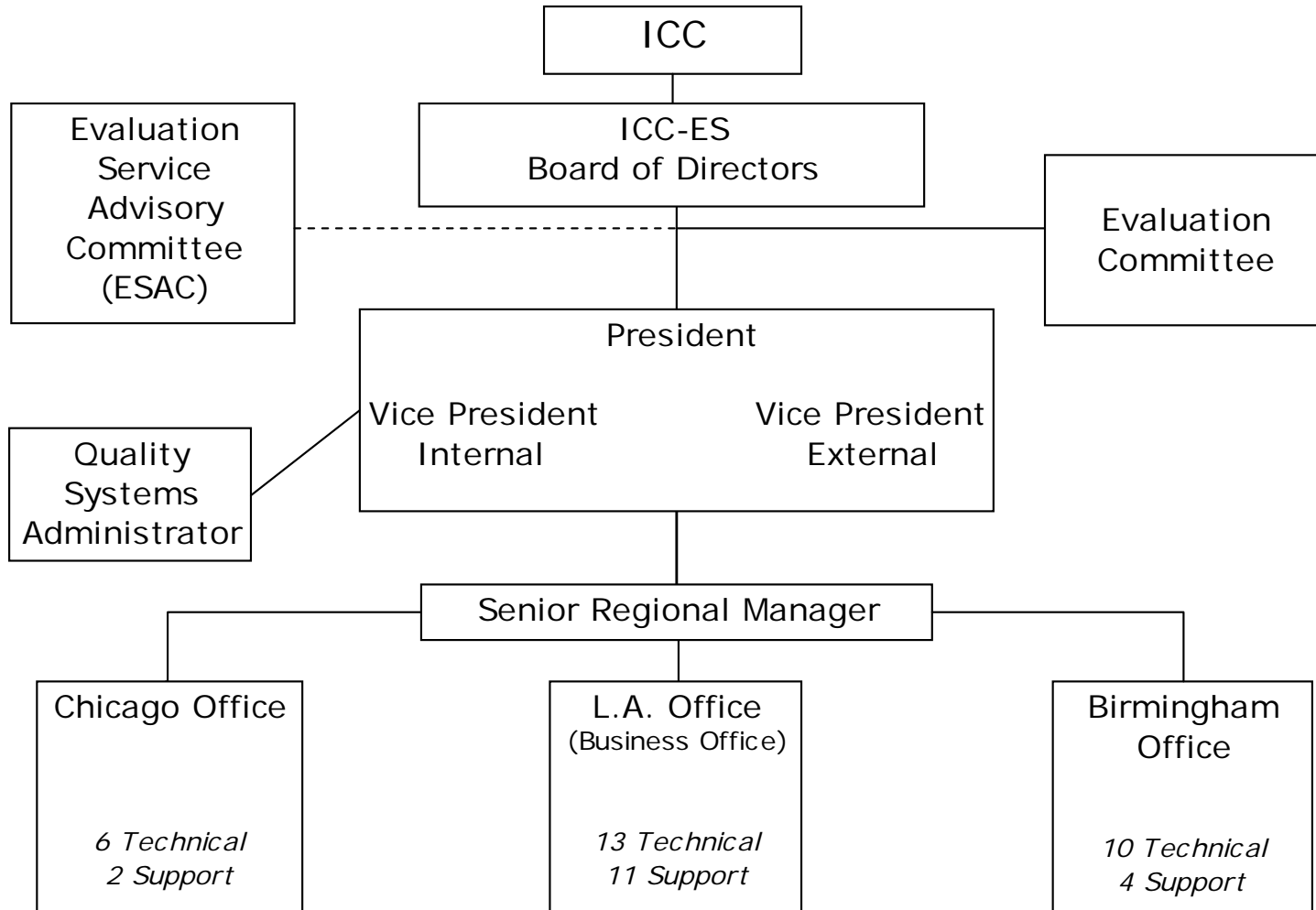
Organization

- Staff in all four offices (Birmingham, Chicago, Los Angeles, and Washington, D.C.).
- 46 Total Employees (29 technical staff).
- Staff has expertise in many areas.
- Accredited by ANSI as a product certification entity under ISO 9001 and ISO Guide 65.



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Code Basis for Alternative Products

- Both the IBC and IRC contain performance provisions for the use of alternative products.
- The ICC-ES evaluation program uses these performance provisions when performing evaluations.
- ICC-ES evaluation reports represent an independent finding of how the report subject meets those performance provisions.



Acceptance of New Products/Technology

IBC Section 104.11 Alternative materials, design, and methods of construction and equipment:

- “The provisions of this code are not intended to prevent the installation of any material or to prohibit any design or method of construction not specifically prescribed by this code, provided that any such alternative has been approved.”



Acceptance of New Products/Technology (cont.)

IBC Section 104.11 Alternative materials, design, and methods of construction and equipment:

- “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 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.”



Acceptance of New Products/Technology (cont.)

IBC Section 104.11.1:

- “Research reports from approved sources may be accepted by the building official as supporting data to assist in the approval of materials or assemblies not specifically prescribed by the code.”



ICC-ES Role

- The ICC-ES exists to serve as a major link between code officials and manufacturers by providing research (evaluation) reports to fill this need.
- Allows manufacturers to present evidence of code compliance to one agency rather than to many individual building departments.



ICC-ES Serves Two Clients

- Building Departments (Users)
- Manufacturers (Clients)



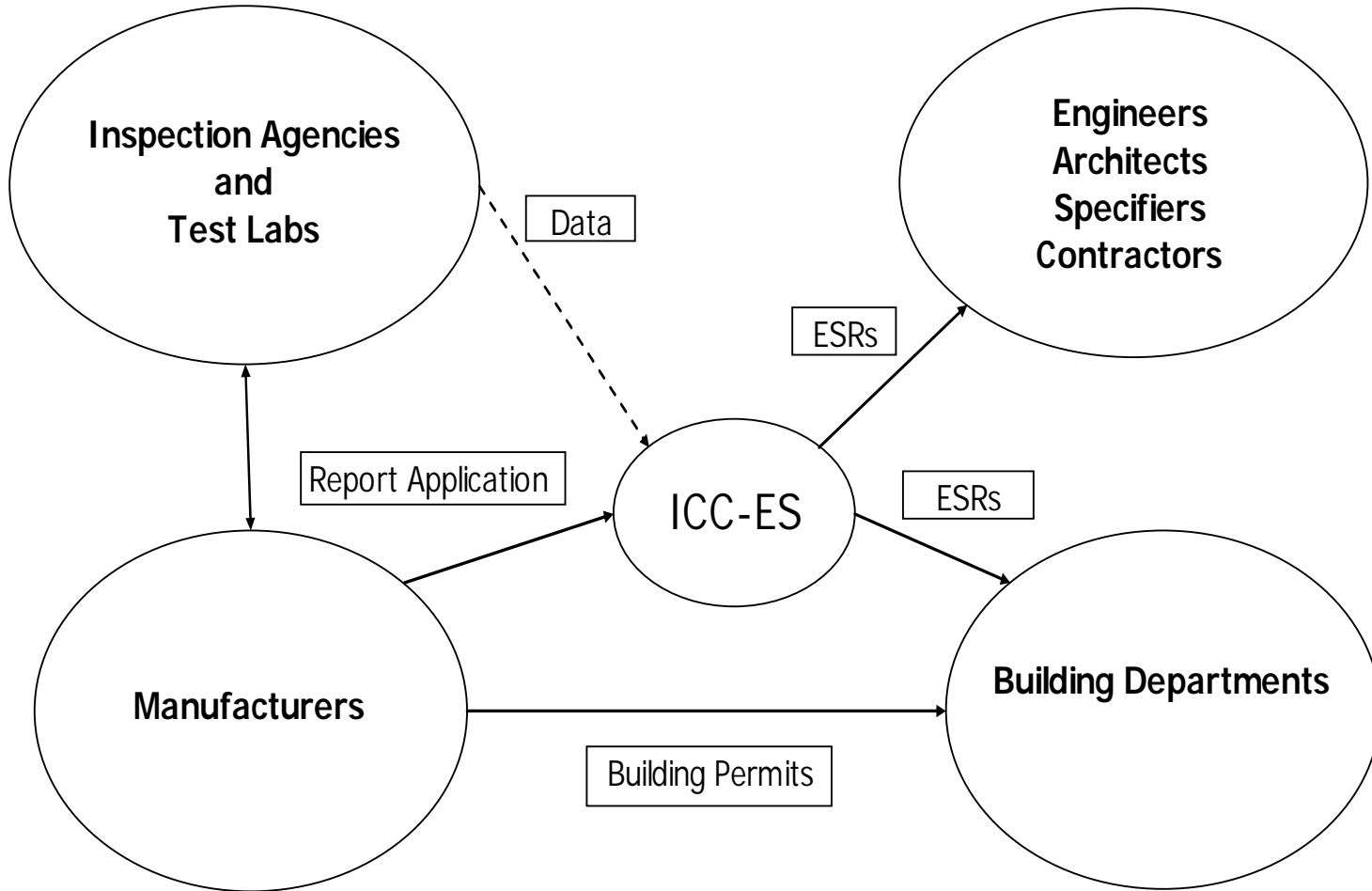
ES interacts with other parties as well:

- Engineers/Architects/Specifiers/Contractors
- Testing Laboratories
- Inspection Agencies



ICC Evaluation Service, Inc.

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ICC-ES' Responsibilities

- To review the applicant's data against a set of requirements to establish code compliance.
- To provide technically correct information.
- To operate a transparent process.
- To develop appropriate requirements for evaluation where the code does not provide specific guidance.
- To operate with consistency and fairness.
- To communicate results of our review to applicants in a logical and concise manner.



Applicant's Responsibilities

- To demonstrate compliance of their product or system with the code and/or applicable acceptance criteria.
- To provide ES with the supporting data necessary to demonstrate code compliance.
- To know and understand the rules of procedure.
- To be familiar with requirements of applicable code as it applies to your product.



ICC-ES Evaluation Reports

- Application, Fee and Substantiating Data Submitted
- Technical Staff Reviews Data For:
 - Compliance with Code Requirements
 - Acceptance Criteria
 - Laboratory Accreditation
 - Quality Control
 - Inspection Requirements



How Does ICC-ES Evaluate For Code Compliance?

There are three options available:

- Compliance with Code requirements (prescriptive).
- Acceptance Criteria – developed by staff with applicant input, heard at a public hearing and approved by the ICC-ES Evaluation Committee.
- Alternative Agenda – developed by staff with applicant input and approved by the ICC-ES Evaluation Committee by e-ballot.



How Are Acceptance Criteria Developed?

- The ICC-ES staff works with the applicant to draft an acceptance criteria.
- Proposed acceptance criteria are posted on the ICC-ES website for 30 days prior to the Evaluation Committee Hearing to allow for comments from interested parties.
- The ICC-ES Evaluation Committee holds public hearings, reviews comments and votes on proposed acceptance criteria.
- Approved criteria are posted on the ICC-ES web site for use by interested parties.



The Evaluation Process

- Application form
- Fees
- Supporting test data from accredited agency
- Quality control documentation
- Initial audit of manufacturing location(s)



The Evaluation Process (cont.)

- Analysis of technical data, such as reports of testing and/or engineering calculations.
- Verification of testing agency accreditation for testing performed.
- Review of quality control documentation for the manufacture of report subject.
- Preparation of a report draft with any comments that need resolution.



Data Submittals: How to Avoid “The Endless Loop”

- Pre-meetings—



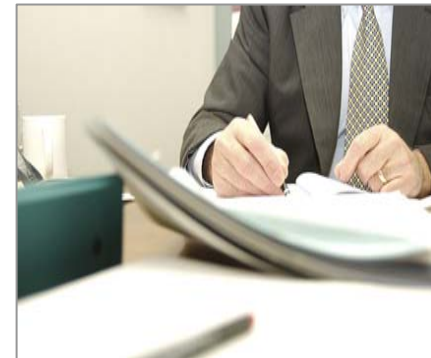
Discuss subject and seek input from staff before submitting data.

- Know the requirements of the Code and/or AC on your product.
- Prepare an organized and concise package of data.
- Communicate with the assigned staff, ask questions.
- Respond in a timely manner - on average, half the time taken to issue a report has been with the applicant.



Data Submittals: Organize the Data

- Provide a letter of explanation:
 - Identify applicable code sections
 - Identify intended end uses
 - Identify unique features
 - Identify scope of evaluation
 - Identify properties to be evaluated





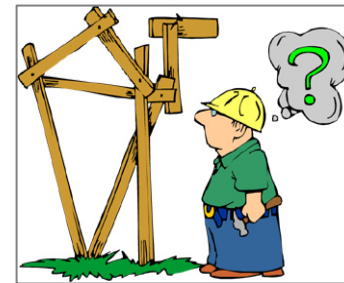
Data Submittals: Organize the Data (cont.)

- Provide a road map that identifies the individual requirements and the data that supports each requirement.
- Prepare an evaluation report draft where appropriate.
- Know the general requirements:
 - Test data from accredited labs
 - Calculations sealed by a registered design professional
 - Quality manual complying with AC10
 - Initial Manufacturer Audit
 - Third-party inspections by an accredited inspection agency (where required)



Data Submittals: Organize the Data (cont.)

- The technical review is based on the information submitted.
- Do not assume the reviewer knows as much about your product as you do, because *we don't*.
- Educate us.





Pitfalls or (Things to Avoid)

Submitting QC Manuals & Test Data

- If an AC exists
- If an AC needs to be developed



Pitfalls or (Things to Avoid)

Submitting a “data dump” – i.e. all data on hand, whether it has a bearing on the evaluation only creates confusion and delays. Only submit data that is applicable to the evaluation being requested.



Pitfalls or (Things to Avoid)

- Sending in everything you have with the hope the reviewer will sort through it for what is needed, (i.e., a “data dump” of all data on hand, whether it has a bearing on the evaluation or not. Only submit data that is applicable to the evaluation being requested.
 - Solution: Provide only that information needed to address the requirements. Explain what the information is for.
- Submitting an application for a report requiring an acceptance criteria at the deadline.
 - Solution: Be aware of the Evaluation Committee schedule and plan accordingly.



Pitfalls or (Things to Avoid)

- Informing ES after changes to the product have been made or after the manufacturing location has been moved.
 - Solution: Involve ES as early as possible in the process.
- Submitting an application three weeks before the marketing program is going to start.
 - Solution: When developing marketing plans, include ES in the timeline.



Pitfalls or (Things to Avoid)

- Many times a report will be held up to add one more product or to expand the scope of recognition.
- Solution: Often, it can be of benefit to issue the report for the products/systems for which there is acceptable data in hand. The costs associated with applying for a subsequent interim revision or re-examination to add additional recognition will usually outweigh the costs of not having the report in the meantime.



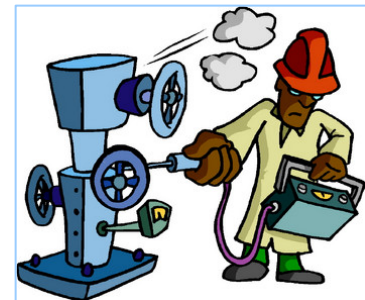
ICC-ES Policy on Consultants

- Staff cannot serve as a consultant
 - Conflict of interest
 - Need to remain independent and credible
 - Lack of time, staffing, and expertise
 - Exceptions
- Staff is permitted to recommend that the applicant hire a consultant.
- ICC-ES does not recommend or endorse any consultant, but technical staff is free to give out the names of at least two consultants that may have worked successfully for other applicants on similar topics.



ICC-ES Policy on Consultants (cont.)

- What are the advantages of using a consultant?
 - They have knowledge in preparing submittal packages and can provide expertise in the process.
 - They take over the responsibilities of ensuring that the process flows smoothly.
- When should an applicant consider using a consultant?
 - **Long** before an application is submitted.





Evaluation Report Content

Evaluation Reports Contain the Following:

- Report Holder Name and Contact Information
- Codes on Which Evaluation Was Based
- Properties Evaluated
- Intended Use(s) of Subject
- Description of Report Subject
- Installation Information
- Evidence Submitted
- Reference to AC, if used
- Conditions of Use
- Product Identification Information



Evaluation Report Content (cont.)

CSI Filing Information	→	DIVISION: 07—THERMAL AND MOISTURE PROTECTION Section: 07460—Siding
Report Holder Information	→	REPORT HOLDER: CRANE PERFORMANCE SIDING LLC 1441 UNIVERSAL ROAD COLUMBUS, OHIO 43207 (614) 443-4841 www.vinyl-siding.com JANBY@Crane-Plastics.com
Subject of the Evaluation Report	→	EVALUATION SUBJECT: CRANE VINYL SIDINGS 1.0 EVALUATION SCOPE
Code(s) Used in the Evaluation	→	Compliance with the following codes: <ul style="list-style-type: none">■ 2003 <i>International Building Code</i>® (IBC)■ 2003 <i>International Residential Code</i>® (IRC)■ BOCA® <i>National Building Code</i>/1999 (BNBC)■ 1999 <i>Standard Building Code</i>® (SBC)■ 1997 <i>Uniform Building Code</i>™ (UBC)
Properties/Uses Which Were Evaluated	→	Properties evaluated: <ul style="list-style-type: none">■ Exterior veneer■ Wind resistance



Evaluation Report Content (cont.)

Intended Use(s) That Were Evaluated →

2.0 USES

Crane vinyl sidings are used as exterior wall coverings and as a closure material on the underside of exposed eaves (soffits).

Description of the Evaluation Report Subject →

3.0 DESCRIPTION

Crane vinyl sidings are horizontal lap sidings and soffits, extruded from a solid rigid polyvinyl chloride (PVC) compound, that conform to the requirements of ASTM D 3679. These exterior cladding products are produced in a variety of profiles, lengths, and thicknesses. Refer to Table 1 for product codes, descriptions, and dimensions. The siding panels have an upper hooking lock, a butt lock and a slotted nailing flange. Accessory products such as comers, starter strips, J-channels and trim pieces and other accessory items are manufactured of the same materials as the siding.



Evaluation Report Content (cont.)

**Description of
General Installation
of the Evaluation
Report Subject**

4.0 INSTALLATION

4.1 General:

Installation of Crane vinyl sidings, soffits and accessory materials such as corners, starter strips, and trim shall be in accordance with ASTM D 4756, the manufacturer's published installation instructions, the applicable code and this report. The manufacturer's published installation instructions shall be available at the jobsite at all times during installation.

**Description of
Specific Installation
Requirements**

The siding shall be installed over solid sheathing with an approved water-resistive barrier as required by the applicable code. Flashing in accordance with the applicable code shall be installed at all openings, penetrations, abutments with dissimilar materials, and at terminations of the sidings and soffit, to maintain the weather tightness of the assembly.

4.2 Wind Resistance:

The design wind pressure shall be determined in accordance with the requirements of Chapter 16 of the IBC, UBC, BNBC, and SBC, or Section R301.2.1.1 of the IRC, as applicable, and shall not exceed the values shown in Table 2 of this report. Wind resistance of soffit panels is outside the scope of this report except where specifically listed in Table 2 and where installation is as siding.



Evaluation Report Content (cont.)

**Conditions
Necessary for Code
Compliance**

5.0 CONDITIONS OF USE

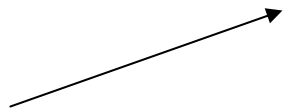
The Crane vinyl sidings described in this report comply with, or are suitable alternatives to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

- 5.1 Installation complies with this report, the manufacturer's published installation instructions and the applicable code. If there is a conflict between the installation instructions and this report, this report shall govern.
- 5.2 Installation shall be limited to buildings of Type V (IBC and UBC), Type 5 (BNBC), and Type VI (SBC) construction, and buildings constructed in accordance with the IRC.
- 5.3 Siding shall be installed only on exterior walls covered by solid sheathing and a water-resistive barrier.
- 5.4 The exterior walls shall be braced or sheathed to resist racking loads with approved materials in accordance with the requirements of the applicable code.



Evaluation Report Content (cont.)

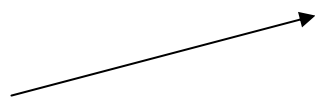
**Evidence
Submitted by the
Report Holder**



6.0 EVIDENCE SUBMITTED

Data in accordance with the ICC-ES Evaluation Guideline for Vinyl Siding (EG37), dated October 2003 (editorially corrected February 25, 2004).

**Identification
Requirements**



7.0 IDENTIFICATION

Each carton of the Crane vinyl siding described in this report is identified at a minimum with the manufacturer's name and/or trademark, the product code, the statement "Conforms to ASTM specification D 3679", the statement "Conforms to UBC Standard 14-2", and the evaluation report number (ESR-1083).



Report Maintenance

- Reports are not eternal.
- New reports are re-examined one year after issuance.
- After first year, option is for a one or two year re-examination.
- Re-examination verifies report subject hasn't changed or code changes don't require revision to the report.
- Successful re-examination results in re-issuance of the report.



Descriptive materials explaining the process on the web site

- Evaluation Process
- Application Materials
- Links to News, ESRs, ACs





Resolving Conflicts



- Identify the Issue
- Attempt to Resolve It With The Reviewing Engineer First
- Ask That It Be Considered By Staff
 - Provide a Written Summary Of The Issues
 - Our Written Response Will Reflect The Staff Position



Summary: **You *can* improve the time to get a report**

- Know how the system works and what should be expected at each stage.
- Establish contact earlier in product development.
- Understand the roles of the various parties involved.
- Take responsibility to show code compliance of the product or system.
- Prepare organized and logical data submittals.
- Communicate with the assigned technical staff.
- Keep your account current



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Thank you for your interest.

Are there any questions?



For more information:
Web: www.icc-es.org
Phone: 1-800-423-6587