ICC Evaluation Service Overview

2024

What is ICC-ES?

- International Code Council subsidiary
- Evaluates products using codes and standards for the built environment
- Accredited by:
  - ANSI National Accreditation Board (ANAB) to ISO/IEC 17065
  - Standards Council of Canada (SCC)
  - American Association for Laboratory Accreditation (A2LA)
  - Joint Accreditation System of Australia and New Zealand (JASANZ) for plumbing products under the WaterMark scheme
- Expert in developing and interpreting ICC-ES Acceptance Criteria (ACs) for innovative products
- Technical staff are licensed engineers in Civil, Structural, Mechanical and other fields with decades of experience

A2LA ACCREDITED

ANAB
ANSI National Accreditation Board
ACCREDITED
ISO/IEC 17065
PRODUCT CERTIFICATION BODY

JAS-ANZ

Standards Council of Canada
Conseil canadien des normes

ICC-ES At a Glance

90 Years
ICC-ES celebrates 90 years of excellence in product evaluation

59 Countries
ICC-ES has issued reports in 59 countries

30,000 Hours
ICC-ES conducts 30,000 hours of inspections annually

5,000 Codes
ICC-ES has completed product evaluations to over 5,000 codes and standards worldwide

History

- ANSI Z34.1-1993
  With reference to: ISO and ISO/IEC Guides 2, 7, 23, 25, 27, 28, 39, 40, 53, and 56, and 60 ISO 9001, 9002, and 9003
- ISO/IEC Guide 40
- ISO/IEC Guide 65-1996
- ISO/IEC 17065-2012

Other Relevant Documents

- ISO/IEC 17007
- ISO/IEC 17020
- ISO/IEC 17025

ICC-ES Programs

- Traditional Building Product Evaluation Program (ESR): Allowing innovation through the issuance of Evaluation Reports (ESRs) as evidence that building products, components, methods, and materials meet code requirements
- Product Listing to Standards Referenced in the Codes (ESL)
- Solar Thermal Ratings and Listings (SRCC)
- Small Wind Ratings (SWCC)
- In-House Testing

ICC-ES Programs (cont.)

- Plumbing, Mechanical and Gas (PMG) Listings: Demonstrating conformance to the standards referenced in the I-Codes® as well as the UPC, UMC and National Plumbing Code of Canada, Kitchen Cabinet KCMA A161.1
- Environmental Programs: Provide manufacturers with independent and comprehensive verification and/or certification that their products meet specific sustainability (green) targets (e.g., WaterSense, Energy STAR, formaldehyde emissions)
- Marketing Claim Verification

Global Regions

- MENA (Middle East/North Africa):
  Dubai Municipality, The Saudi Building Code National Committee (SBCNC), UAE Civil Defense Certificate of Compliance (CoC)
- Oceania:
  WaterMark-Lead Free,
  ES Mark scheme
- Canada:
  Standards Council of Canada (SCC)

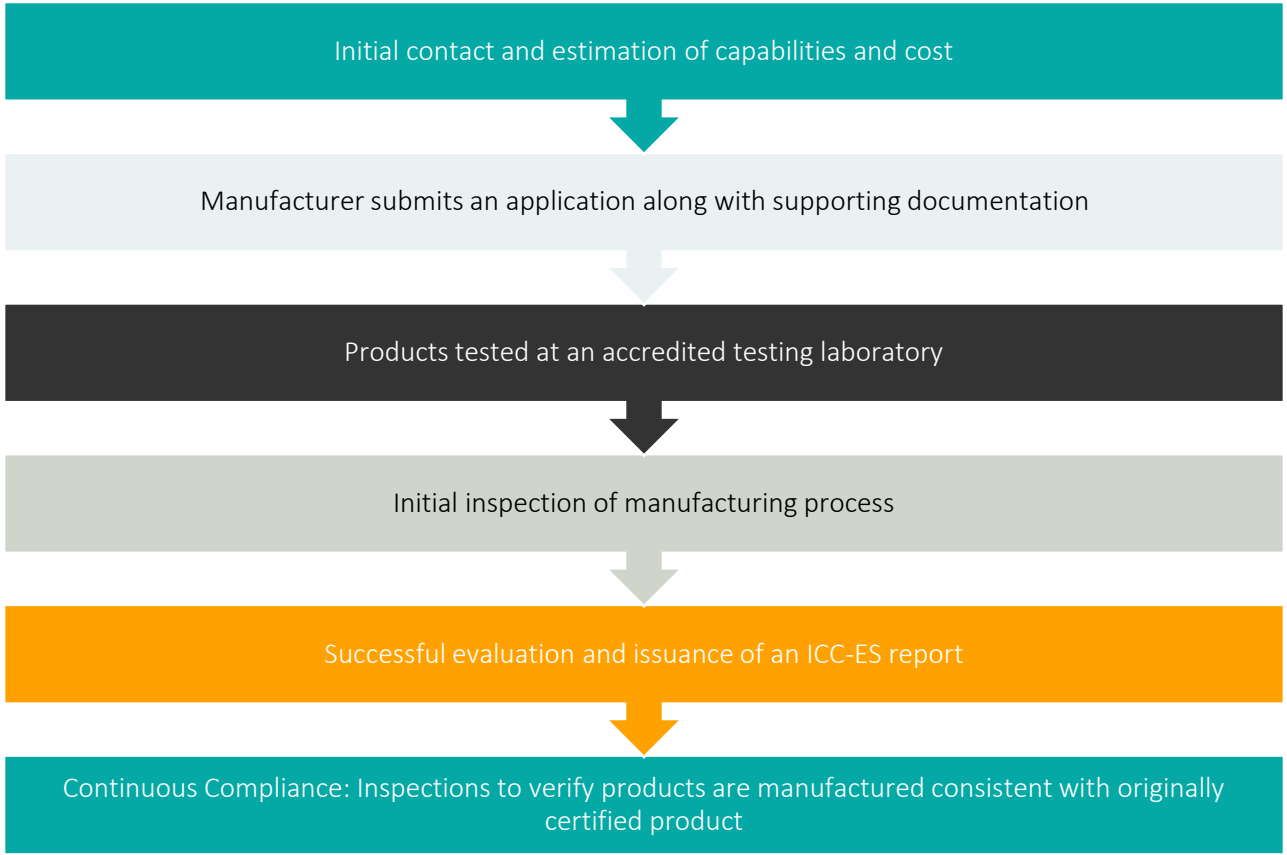
ICC-ES Testing

- ICC-ES provides testing and inspection services including fire testing, structural, floor assembly, and water resistance testing as well as offsite construction services.
- ISO/IEC 17020 and 17025 accredited.

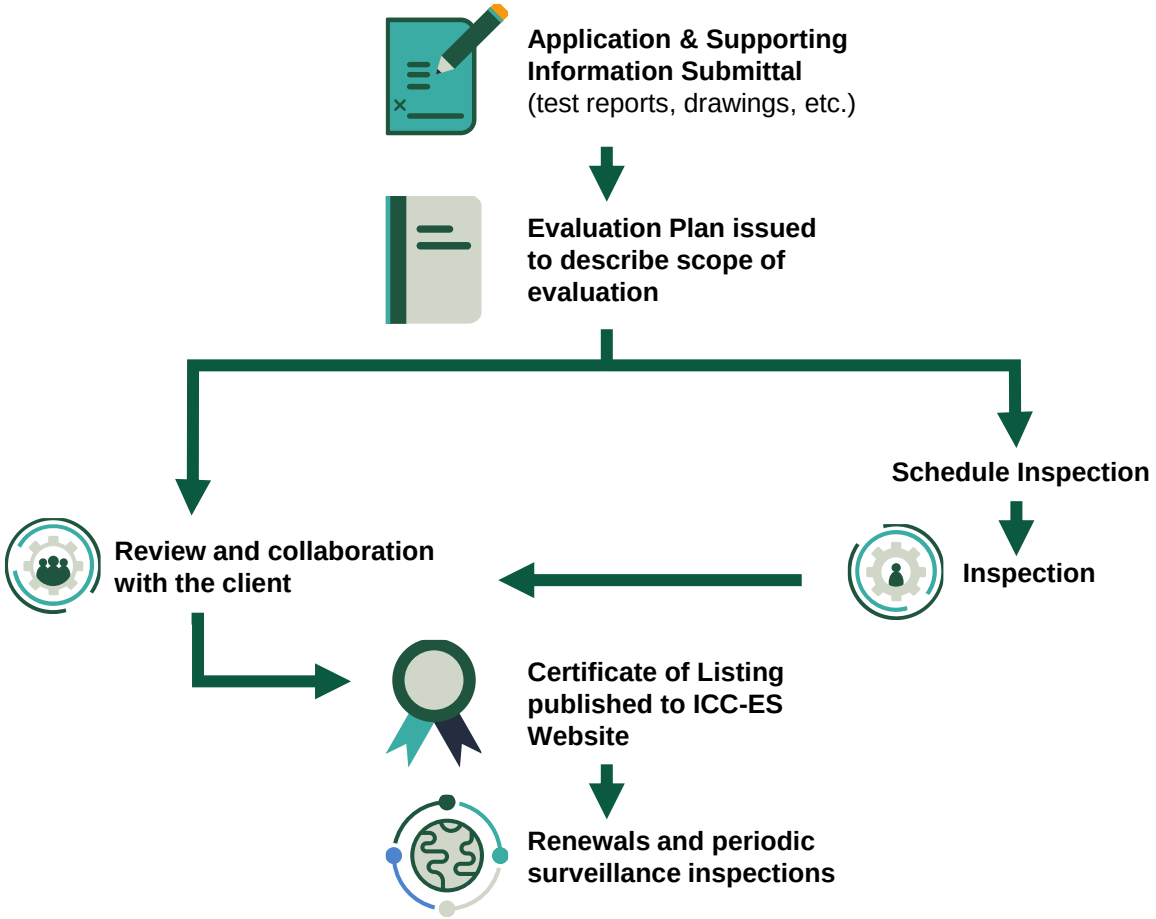
What is Product Certification?

- Review of products against a standard, a criteria, or a code to ensure continuous compliance of products
- Certification steps include review of products, periodic inspection of plants (by an ISO/IEC 17020 accredited inspection agency), periodic review of submitted information against new or revised standards
  - Inspection of the manufacturing plants ensures that the product that was once deemed as compliant continues to comply

Product Evaluation Process



Product Evaluation Process



Benefits of Product Certification

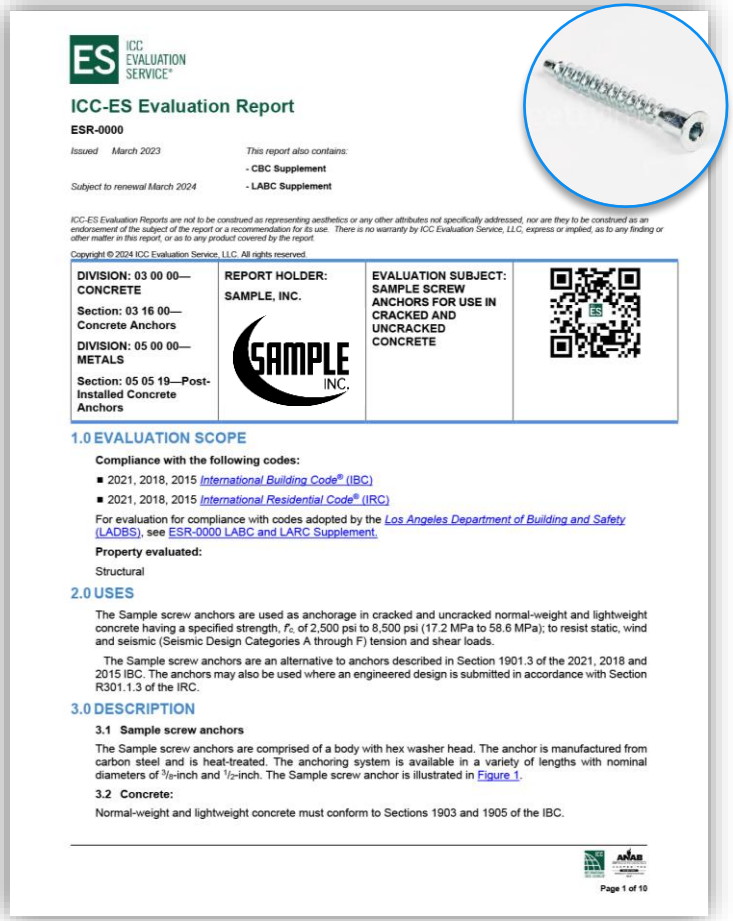
- Consumers have been demanding safer products (worldwide)
- Characteristics such as quality, safety, economy, reliability, compatibility, efficiency and effectiveness can be examined through conformity assessment
- It assures that products deliver on their promise
- Users can be assured that the products are safe for usage and can perform as expected

ICC-ES Marks of Conformity

- Inspectors should look for ICC-ES marks prior to approving installation where the code or other criteria requires conformity to a standard.
- The ICC-ES mark means that the product has undergone a rigorous evaluation
- ICC-ES has a new, universal mark of conformity!

What's in an ICC-ES Evaluation Report

ICC-ES Evaluation Reports from ICC Evaluation Service® are the most preferred resource used by code officials to verify that new and innovative building products comply with code requirements. ICC-ES Evaluation Reports provide information about what code requirements or acceptance criteria were used to evaluate the product, how the product should be installed to meet the requirements, how to identify the product, and much more. ICC-ES Evaluation Reports are divided into twelve major areas. Digitized reports are interactive and contain internal and external links.



ICC EVALUATION SERVICE®

ICC-ES Evaluation Report

ESR-0000

Issued March 2023

Subject to renewal March 2024

This report also contains:

- **CBC Supplement**
- **LABC Supplement**

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DIVISION: 03 00 00—CONCRETE Section: 03 16 00—Concrete Anchors DIVISION: 05 00 00—METALS Section: 05 05 19—Post-Installed Concrete Anchors	REPORT HOLDER: SAMPLE, INC.	EVALUATION SUBJECT: SAMPLE SCREW ANCHORS FOR USE IN CRACKED AND UNCRACKED CONCRETE	

1.0 EVALUATION SCOPE

Compliance with the following codes:

- 2021, 2018, 2015 *International Building Code®* (IBC)
- 2021, 2018, 2015 *International Residential Code®* (IRC)

For evaluation for compliance with codes adopted by the *Los Angeles Department of Building and Safety* (LADBS), see ESR-0000 LABC and LARC Supplement.

Property evaluated:

Structural

2.0 USES

The Sample screw anchors are used as anchorage in cracked and uncracked normal-weight and lightweight concrete having a specified strength, f'_c, of 2,500 psi to 8,500 psi (17.2 MPa to 58.6 MPa); to resist static, wind and seismic (Seismic Design Categories A through F) tension and shear loads.

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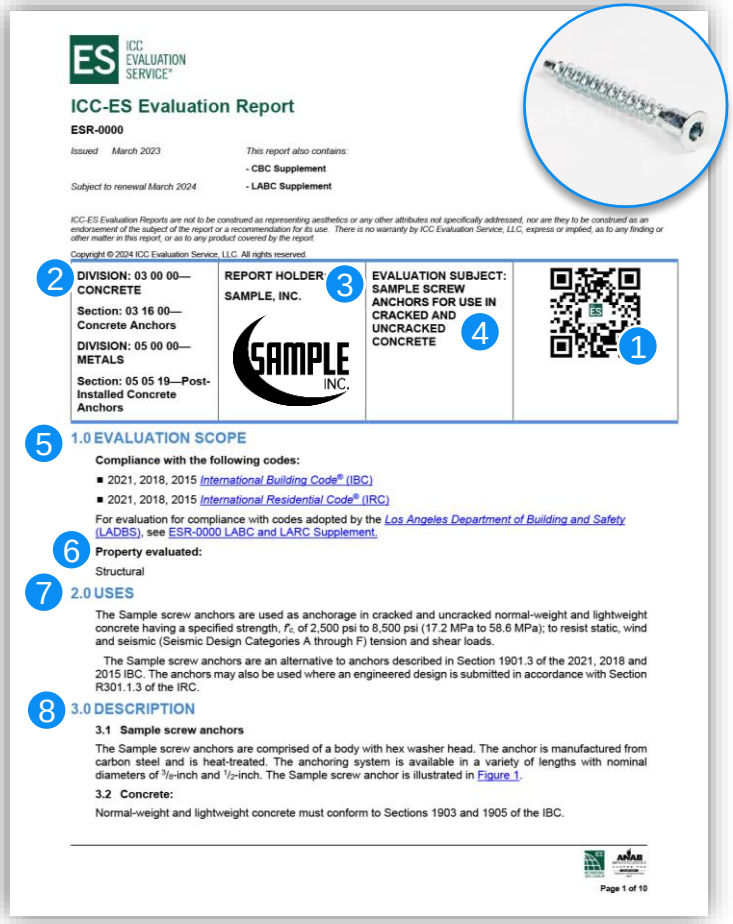
3.2 Concrete:

Normal-weight and lightweight concrete must conform to Sections 1903 and 1905 of the IBC.

What's in an ICC-ES Evaluation Report

1. **QR Code-** Easy access to digital report online
2. **CSI Division Number-** ICC-ES Evaluation Reports, and the building products represented in them, are organized according to the Construction Specifications Institute's (CSI) Masterformat system.
3. **Report Holder-** The name, address, and logo of the company or organization that has applied for the ICC-ES Evaluation Report.
4. **Evaluation Subject-** The specific product(s) covered by the report.
5. **Evaluation Scope-** The code(s) that were used to evaluate the product.
6. **Properties Evaluated-** A brief description of the properties the product was evaluated against such as fire resistance and wind resistance. This section also shows if the product can be used for structural purposes.
7. **Uses-** Identifies the scope of the ICC-ES Evaluation Report and relates the product evaluated to code provisions.
8. **Description-** Provides a general description of the product and its features, such as length, thickness, etc.



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2 **DIVISION: 03 00 00—CONCRETE**

Section: 03 16 00—Concrete Anchors

DIVISION: 05 00 00—METALS

Section: 05 05 19—Post-Installed Concrete Anchors

REPORT HOLDER: 3

SAMPLE, INC.

EVALUATION SUBJECT:

SAMPLE SCREW ANCHORS FOR USE IN CRACKED AND UNCRACKED CONCRETE 4

1

5 **1.0 EVALUATION SCOPE**

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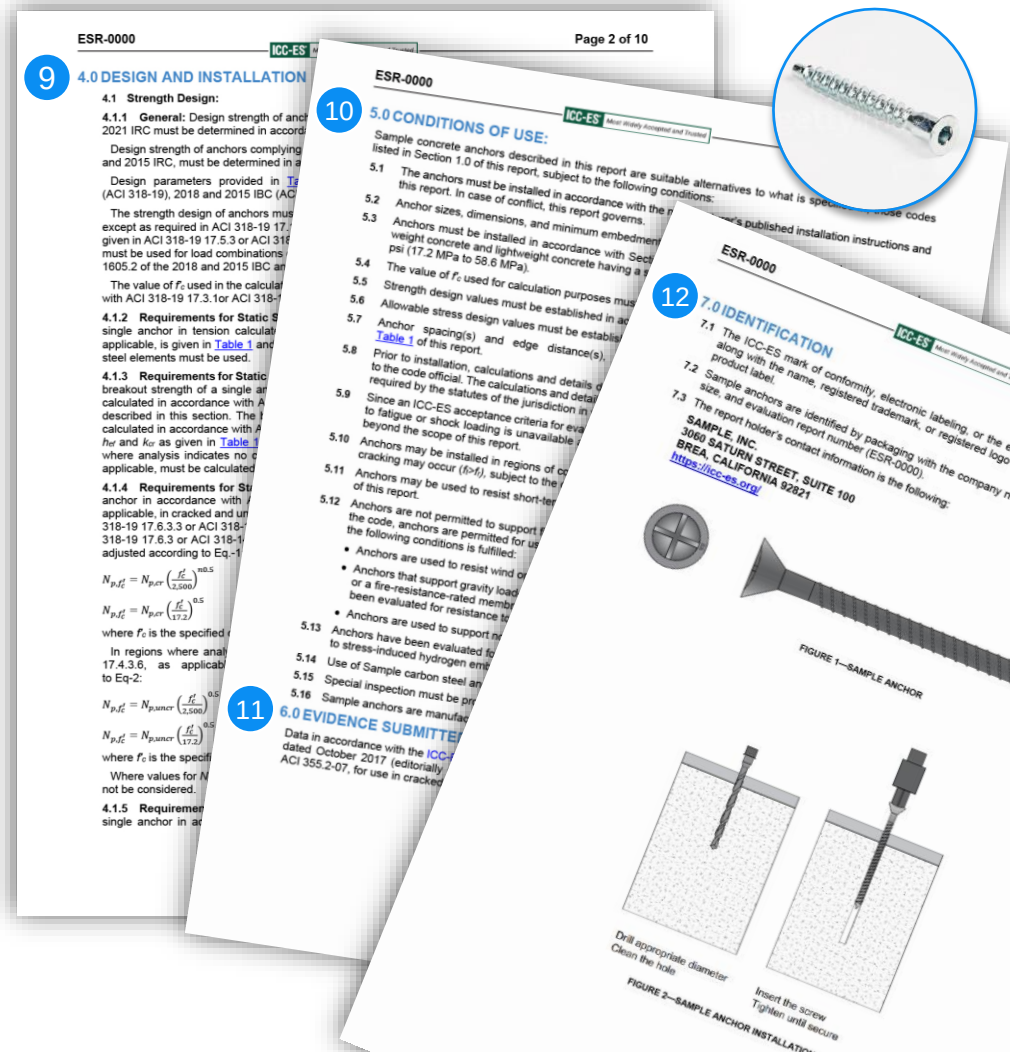
What's in an ICC-ES Evaluation Report

9. **Design and Installation-** Identifies general and often specific requirements to help the inspector ensure the product is installed properly according to the code requirements or acceptance criteria.
10. **Conditions of Use-** Statement that the product, as described in the ICC-ES Evaluation Report, complies with or is a suitable alternative to the requirements of the applicable code and a list of conditions under which the report is issued
11. **Evidence Submitted-** Data (i.e. test reports, calculations, installation instructions) that was used in evaluating the product.
12. **Identification-** Information that can be used to identify the product, including the manufacturer's name, product code, ICC-ES Evaluation Report number, etc.



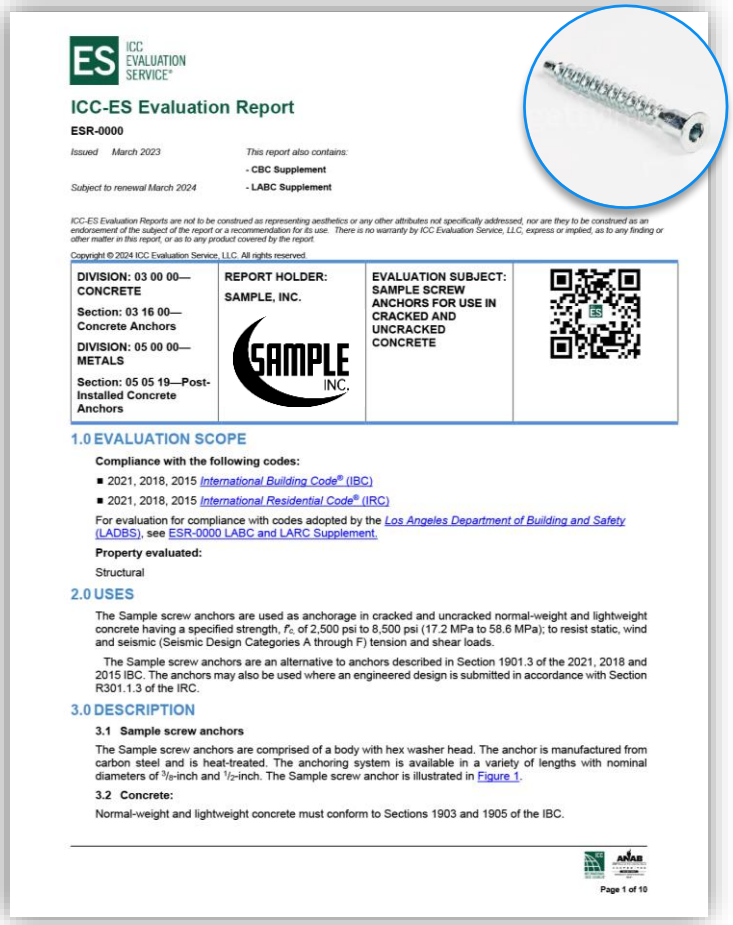
Basis for Evaluation Report

Code Provisions

- This is the basis for evaluation

Acceptance Criteria

- For innovative products not specifically referenced in the code, existing or new Acceptance Criteria developed by ICC-ES are used as the basis for evaluation



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3.2 Concrete:

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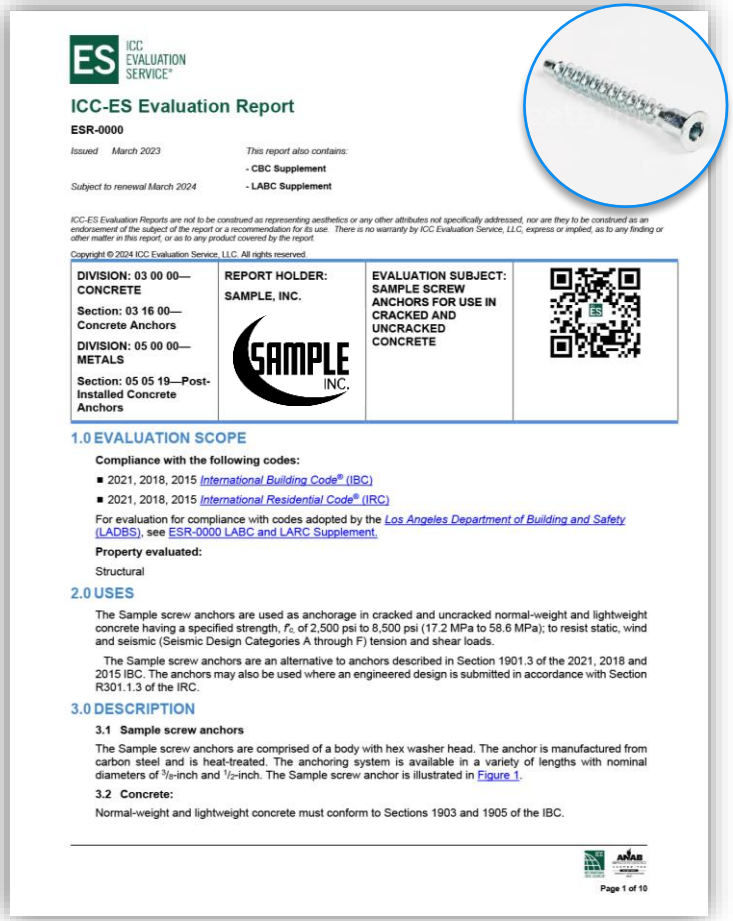
ESRs: What to Look For

Before approving products for installation, look for:

- A valid evaluation report by a qualified evaluation service provider with applicable accreditations
- Verification of the report relates to the product and use of such product and installation conditions
- Product report number, listing number, or mark of conformity

Valid evaluation reports and listings can be found on the ICC-ES online directory on our website at www.icc-es.org.



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What are Acceptance Criteria?

- Developed by ICC-ES technical staff to address new or innovative products or applications not defined or contained in the codes.
- New criteria and changes to criteria are vetted in a public input process and are approved by an Evaluation Committee made up of code officials

ES

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ACCEPTANCE CRITERIA FOR HUMIDITY-DEPENDENT VAPOR RETARDERS

AC528

Approved October 2021

PREFACE

Evaluation reports issued by ICC Evaluation Service, LLC (ICC-ES), are based upon performance features of the International family of codes. (Some reports may also reference older code families such as the BOCA National Codes, the Standard Codes, and the Uniform Codes.) Section 104.11 of the International Building Code® reads as follows:

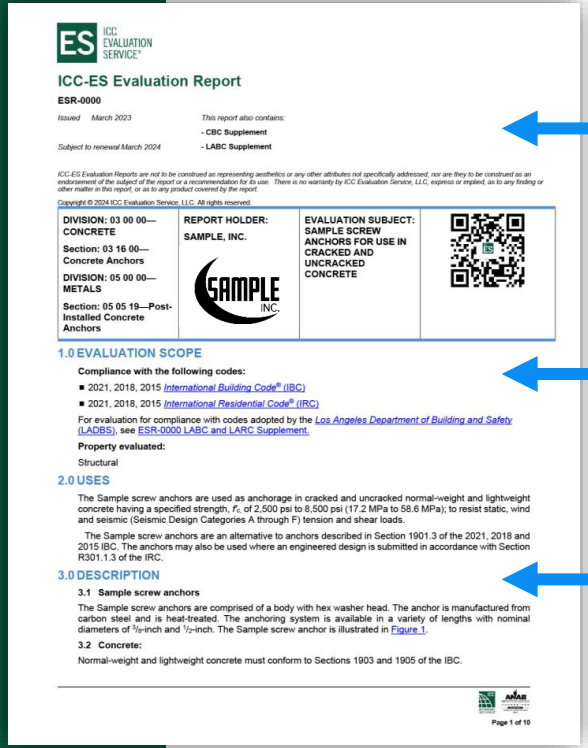
> The provisions of this code are not intended to prevent the installation of any materials or to prohibit any design or method of construction not specifically prescribed by this code, provided that any such alternative has been approved. An alternative material, design or method of construction shall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

This acceptance criteria has been issued to provide interested parties with guidelines for demonstrating compliance with performance features of the codes referenced in the criteria. The criteria was developed through a transparent process involving public hearings of the ICC-ES Evaluation Committee, and/or on-line postings where public comment was solicited.

Benefits of having an ICC-ES Evaluation Report (ESR) to a Code Official

- Provides the necessary evidence a code official can review to determine whether a product complies with codes and standards
- Avoids otherwise required departmental time/resources to ensure compliance
- Reduce health and safety risks and associated departmental liability
- Speeds permitting review
- Expedites approval by code officials

ESRs are freely accessible for building departments and the general public.



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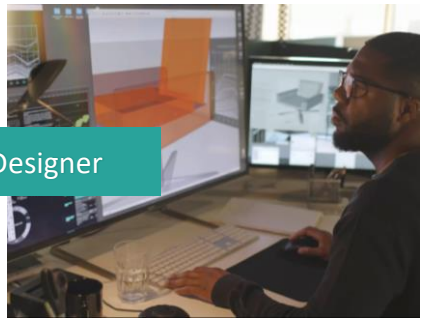
Code Official

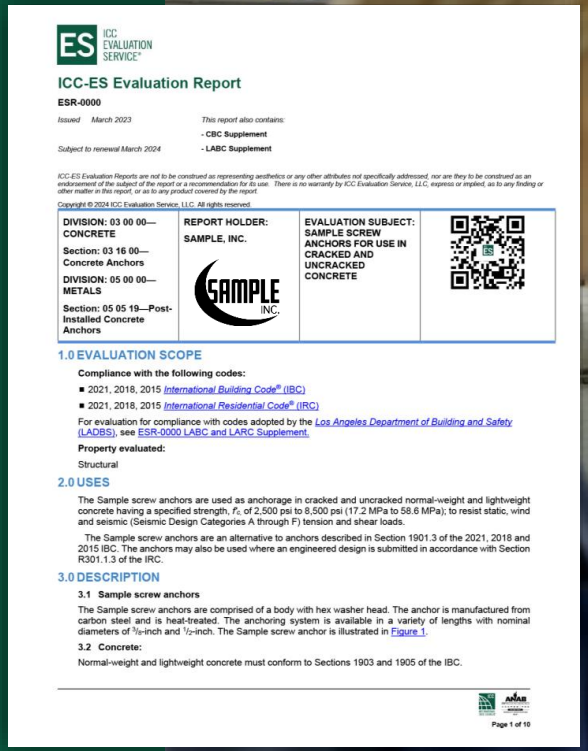
Manufacturer

Designer



Benefits of an ICC-ES Evaluation Report to the Manufacturer

- Evidence to prove product complies with codes and standards
- Key to entering U.S. marketplace for domestic and foreign manufacturers
- ICC brand backing the code compliance of the product
- Reduces regulatory barriers and allows new and innovative products to be used in construction projects
- Competitive advantage



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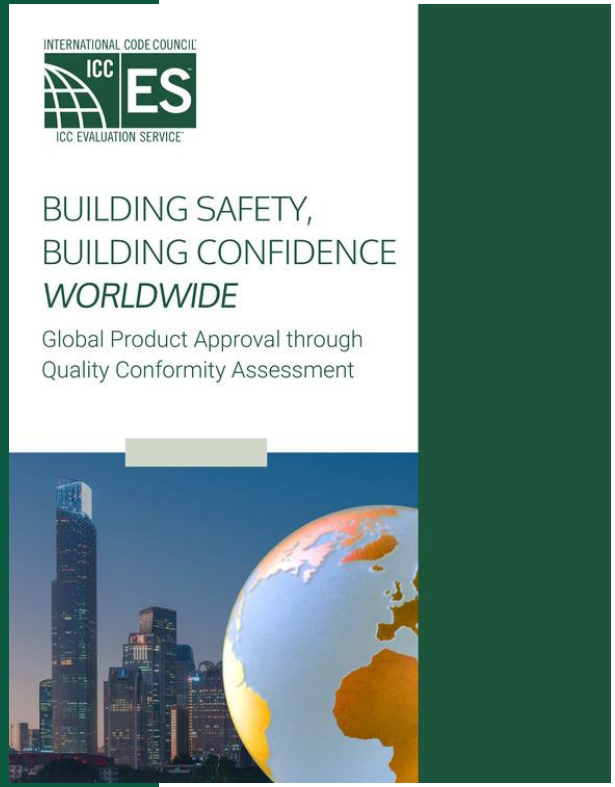
What Sets ICC-ES Apart?

- Only evaluation service body that is part of an entity that publishes the national building codes
- Highest quality of product review: evaluations are conducted by licensed professional engineers in a variety of disciplines (structural, mechanical, civil, etc.
- The only evaluation service body with institutional knowledge about ICC-ES Acceptance Criteria
- The only entity qualified to interpret and evaluate to ICC-ES Acceptance Criteria

Global Certification



Access your free copy of the digital resource guide here!

SCAN ME

Questions

Family of Solutions

ICC EVALUATION SERVICE®

INTERNATIONAL ACCREDITATION SERVICE®

GENERAL CODE

ICC SKGA S. K. GHOSH ASSOCIATES

NTA

ICC COMMUNITY DEVELOPMENT SOLUTIONS

Alliance for National & Community Resilience™

American Legal Publishing