Third-Party Certification of Building Materials

Trust and Confidence: the benefits of third-party certification in code compliance

UL Solutions

Index

Code officials, architects, specifiers, plan reviewers and other code authorities have the important responsibility of determining whether building products and assemblies comply with governing codes and regulations. While this may sound straightforward, many questions arise pertaining to such a determination:

- Do the products or assemblies comply with the standards and requirements of the code?
- What is self-declaration?
- Is testing alone sufficient to demonstrate compliance?
- Does the product or assembly need to be certified by a third party?
- What is the difference between UL Listed, UL Classified and UL Certified?
- How do you confirm that a product or assembly is third-party certified?

This overview addresses these commonly asked questions and demonstrates the important role that third-party certification plays in demonstrating code compliance for all stakeholders.

This overview addresses common questions about tools for determining code compliance of building products and assemblies, and the increased market confidence and trust that comes from third-party certifications.

By Dwayne Sloan, Director,
Principal Engineering, Built Environment.

📖 **INDEX**

Connecting the dots between codes, standards, testing and certification

Many municipalities' laws, codes and regulations require building materials to be tested, evaluated or listed (certified) before they can be installed in a jurisdiction. Building codes reference a wide variety of testing and product standards. Standards development organizations (SDOs), such as UL Standards & Engagement (UL SE), ASTM and NFPA develop these standards using a consensus-based process for development, publication and revision. Products and assemblies are tested and evaluated to these standards as a means to determine if they comply with code requirements. Manufacturers can choose to demonstrate that their products comply with standards and codes in different ways. However, not every method provides the same level of confidence and trust in the demonstration of compliance. There are risks and consequences associated with how compliance is demonstrated. It is important that these risks and consequences be considered as they may have a large impact upon acceptance by the code authority.

The limits of self-declaration

Codes often require listing and labeling, which are synonymous with third-party certification by an independent, competent and knowledgeable organization. However, there are times when codes only require compliance with a standard and listing and labeling are not specified. In these cases, a manufacturer may choose to test or evaluate products independently and present their findings to a code authority for acceptance. Self-declaration has limited value as it offers the lowest level of confidence and trust in code compliance and acceptance. In these situations, a manufacturer conducting their own testing has an inherent bias to achieve a compliant test result. Additionally, test personnel may not be fully competent or accredited to perform such evaluations and tests.

Because of the potential for bias with "self-declaration", code authorities and other stakeholders may question the results and processes used and require additional steps before determining that a product complies. Ultimately, self-declaration could require more time and money to fulfill the demands of code authorities and demonstrate code compliance.

INDEX

Better but not best: third-party testing only

Governing authorities and stakeholders usually insist on a higher level of trust and confidence through testing conducted by third-party organizations using independent and unbiased laboratories that have received accreditation.

For a higher level of trust and confidence that materials and products comply with specified standards, a manufacturer may have a third-party laboratory conduct tests and present those results to a code authority. In this scenario, the laboratory is competent and accredited to perform the test, and by virtue of that accreditation, has demonstrated itself to be an unbiased (objective) third-party.

However, this third-party testing-only scenario does have some limitations. Using this option, it is important to note that the product is not under a factory surveillance program which isa code requirement for "listed" products. This means no independent confirmation exists to provide confidence that products under production and being installed are the same as those originally tested. In addition, because the test scenario only relates to the samples tested and not to ongoing production of the material or product, there is no third-party certification mark or associated label provided.


INDEX

UL Solutions

An ideal option: Listing and labelled through third-party certification

When codes require listing and labeling in accordance with specified requirements, then third-party certification is the only means for demonstrating compliance to the code. Even in situations where the codes may not specifically require third-party certification, there are numerous benefits to third-party certification. This path offers the highest level of trust and confidence and is synonymous with the code terminology "listed" and "labeled".

"Listing" in the model codes means that the equipment, materials and products fulfill particular criteria:

- The equipment, materials and products are included in a list published by an organization acceptable to the code authority.
- The listing organization must be a third-party concerned with evaluation of products.
- Equipment, materials and products must undergo periodic inspection of production.
- The listing must state that the product meets identified standards.

INDEX
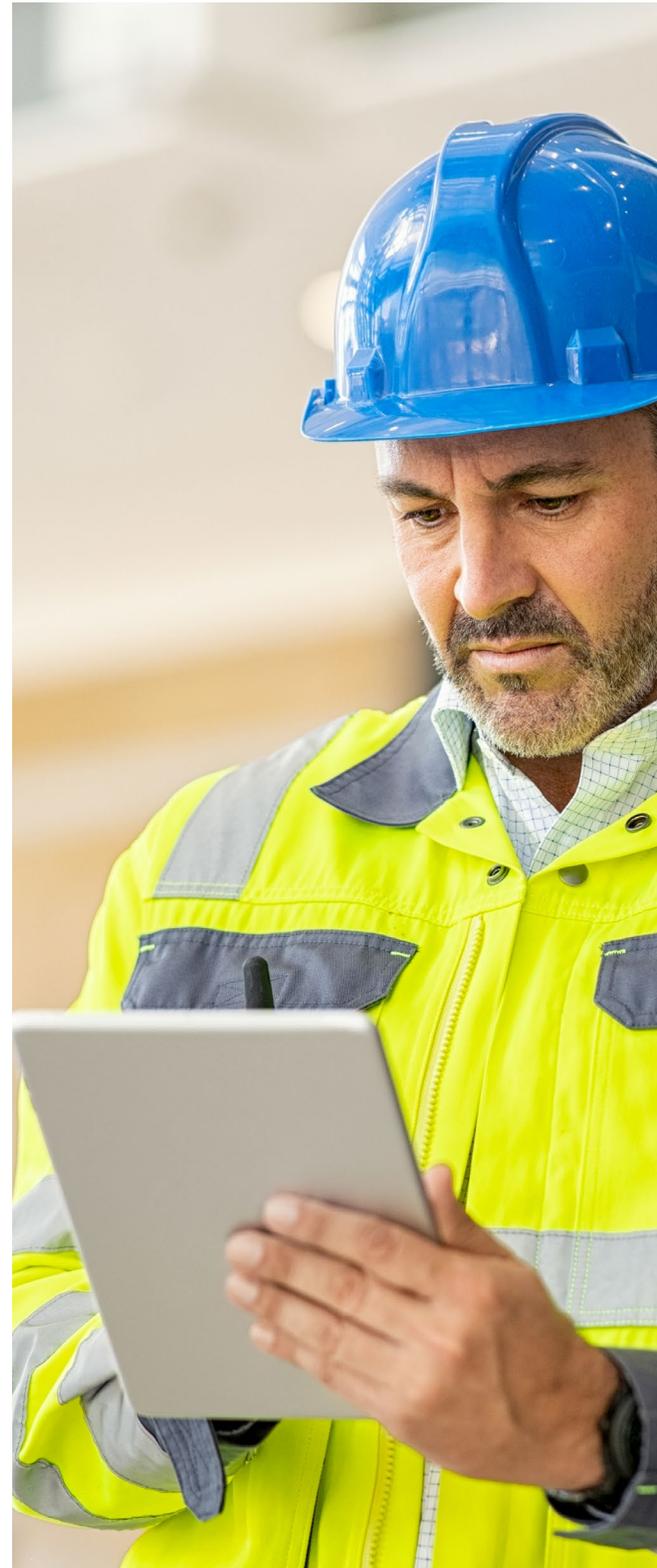
UL certification Mark from UL Solutions indicates a product has been evaluated and found to comply with specified standards, and is manufactured under a factory surveillance system (UL Follow-Up Services).

Meaning the certification extends beyond testing for as long as the product bearing a UL Mark is being produced (manufactured). The factory surveillance program is the method used by UL to verify that products are produced in a manner representative of the construction of the product that was originally certified and remain compliant with the requirements in the specific standard.

To display a UL Certification Mark (UL Mark) on a package or product, a manufacturer agrees to comply with UL Solutions' requirements, such as controlling manufacturing specifications and instituting quality control procedures. Under this agreement, UL Solutions sets up factory surveillance, which includes field engineers periodically testing and examining products samples from the factory or open market for additional testing. When discrepancies are found, appropriate action is taken, which may require additional UL Solutions involvement. Serious discrepancies may result in discontinuing production bearing the UL Mark or the UL Mark being removed.

The difference between UL Listed Mark, UL Classified Mark, and the Enhanced (Certified) UL Mark

The UL Mark is the single most widely recognized and accepted third-party certification mark in the United States, appearing on billions of products annually. This is prevalent in the building materials area as well. The three dominant UL Marks appearing on finished and completed products include:

- **The UL Listed Mark** — Our long-standing certification Mark indicates that the product has been evaluated to a minimum set of requirements set forth in the appropriate standard used.

- **The UL Classification Mark** — Another of our well-established certification Marks indicates that UL Solutions has evaluated the product with respect to specific properties, a limited range of hazards or suitability for use under limited or special conditions.

- **The Enhanced UL Certified Mark** — The Enhanced UL Certification Mark bundles multiple certifications into a single Mark, utilizes a unique identifier for easier access to information, communicates geographic scope of certification through country codes and describes the attributes that UL Solutions has certified about a product. The Enhanced Mark has advantages of greater use around the globe, ease of creating the mark through online platforms, and a smart mark feature using QR codes to link the product to crucial certification information.

UL Solutions is transitioning to the Enhanced UL Certification Mark because the term Certified is a more general term encompassing both "Listed" and "Classified." The enhanced Mark meets the definition of "listed" in all model codes, so it carries the same meaning as our legacy Listed or Classification Marks. All variations of our Listed and Classification Marks remain valid and will continue to be accepted as an indication of third-party certification.

INDEX

UL Solutions

Confirming that a product or assembly is third-party certified

One way to determine if UL Solutions evaluated and certified a product is to look for UL Marks on building materials and equipment. In addition, UL Product iQ®, an online certification directory, includes additional information on UL Certified building materials and equipment. Product iQ, available at www.ul.com/PiQ, is free to use but requires a one-time registration. This database contains the names of companies authorized to use the UL Mark on or in connection with products UL Solutions found to comply with specific requirements. These companies, as well as the product manufacturers, have entered into agreements with UL Solutions to only use the UL Mark on products manufactured in compliance with the applicable certification requirements.

When UL Solutions lists building materials and equipment on UL Product iQ®, it signifies the following:

- Representative samples of the products have been submitted to UL Solutions and found to comply with applicable requirements.
- The companies listed in the directory have been authorized to apply the UL Mark on products that continue to comply with the applicable certification requirements
- The products are subject to UL Solutions Follow-Up Services, which verifies a manufacturer is producing a product according to the requirements even after the original evaluation and testing has been completed.

Guide Information published in UL Product iQ® may also provide important information relating to limitations or special conditions applying to the products.

Summary

All stakeholders, including code authorities, architects and engineers and contractors are encouraged to ask questions to fully understand the nuances of self-declaration and different third-party services when evaluating for code compliance. For the highest level of confidence and trust, choosing a third-party certification partner can help you demonstrate that building materials and equipment are in compliance with relevant standards and model code requirements. This offers manufacturers the best way to demonstrate their product's compliance in the marketplace, which results in safer building construction.

TALK TO AN EXPERT

INDEX

Solutions

UL.com/Solutions