

Standards, Codes, and Guidelines

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ABSTRACT

The three model code organizations in the United States produce both building and mechanical codes that may impact materials used in the building thermal envelope. Materials used to insulate and seal must satisfy strict guidelines on such diverse criteria as toxicity, flame spread, and smoke developed ratings. Most construction assemblies include installation, and all assemblies must satisfy fire ratings and combustibility (type of construction) criteria.

Codes also mandate allowable leakage rates, indoor air quality, and allowable types of refrigerants.

New products must be evaluated according to existing criteria during their development process. A new product's lack of compatibility could result in a local building official halting construction on the project. The design professional and manufacturer would then bear the responsibility of providing proof that the new product meets minimum standards. This proof must be satisfactory to the building official.

With planning, the code change option exists. All model codes have yearly revision procedures that allow public testimony. New products and procedures, with sufficient documentation of safety, are added to the model codes yearly.

Another mechanism that can be used for code acceptance of a product or procedure is the compliance report program. This is a proprietary program that involves evaluation of independent laboratory tests. These tests result in a report documenting limitations of use for products or procedures that are code-complying.

The model codes provide mechanisms for the acceptance of new products and systems through the code change procedure and the compliance program. However, the producer must take an active role. During development, the producer must determine if the product complies with the applicable code. If the product does not comply:

- 1) a code change should be submitted with sufficient justification to change the code or*
- 2) an application for a compliance report should be requested.*

With proper planning, either the code change or compliance report option provides an adequate means to obtain code acceptance of a new product or system.