

extrusion manufacturer provides the mullions and frames that support the glazing and is responsible for thermal breaks. A glazing manufacturer provides the glazing units, cut to size and fabricated as insulated glass (IG) units. The glazing manufacturer is responsible for tempering or heat strengthening, the tint of the glass, any special coatings, the spacers, and the sealants. A glazing contractor (usually a subcontractor to the general contractor) puts the system together at the construction site or their shop and is responsible for many quality aspects. Predetermining the energy performance of site-built fenestration as a system is more challenging than for manufactured units.

NFRC 100 addresses the special needs of site-built fenestration products. The NFRC procedures are recommended for all site-built fenestration systems or use Table 116-A for large construction projects. Large construction projects are those that have 10,000 ft² or more of site-built fenestration, which includes windows, non-opaque doors, and skylights. The requirement is intended to apply to large office buildings and other nonresidential buildings with large curtain wall systems. Many of the costs for testing and labeling site-built glazing systems are fixed, so the cost per ft² is lower in larger projects. This is the primary rationale for NFRC testing and labeling.

One of the parties (architect, glazing contractor, extrusion manufacturer, IG fabricator, or glass manufacturer) must take responsibility for testing and labeling of the site-built fenestration system under the most recent NFRC 100 procedure. The responsible party must obtain an NFRC license and establish a relationship with an NFRC certified simulation laboratory, an NFRC certified testing laboratory, and an NFRC certified independent agent (IA). For more information on the licensing process, refer to the NFRC web site at <http://www.nfrc.org/>.

The responsible party must work with the glazing or curtain wall supplier(s) to carry out the following steps:

- Arrange for an NFRC accredited simulation laboratory to evaluate and determine the thermal performance of each product line.
- Make an arrangement with an NFRC accredited testing laboratory to conduct a validation test on each product line.
- Forward copies of the simulation and test reports to an NFRC-accredited IA for review.

The IA then issues an NFRC Label Certificate that is kept on file in the general contractor's construction office and posted on-site for review by the building inspector. The NFRC Label Certificate serves the same function as the temporary label that is required for manufactured fenestration products.

It is typical for the glazing contractor to assume responsibility for the team and to coordinate the certification and labeling process. A common procedure is for the design team to include language in the contract with the general contractor that requires that the general contractor be responsible; the general contractor typically assigns this responsibility to the glazing contractor. Once the responsible party has established a relationship with an IA, a simulation laboratory and a testing laboratory, the process works smoothly and should not delay either the design or construction process.