Standards & Building Codes

The ICF industry over the last decade has successfully completed major steps in the testing and evaluation of the components and wall assembly attributes for insulated concrete forms.

Working with the International Code Council - Evaluation Services (ICC-ES) and the Canadian Construction Materials Council (CCMC), standards and acceptance criteria have been established to test and evaluate ICFs to meet building codes. This has resulted in ICFs being specifically recognized in the building and energy codes across North America.

Fox Blocks and the ICF industry, in co-ordination with the ICC-ES, ASTM and ULC have developed standards for the manufacturing and design of flat wall ICFs. These standards are now recognized in building codes and must be included in the evaluations process for product approval.

The ICC-ES has also developed a list of Acceptance Criteria, to meet code compliance, for the materials used in the manufacturing of an ICF, plus the characteristic requirements for the application of ICFs in all building types. Fox Blocks maintains a comprehensive list of third party certified lab testing to demonstrate compliance to these standards, acceptance criteria and building codes. The main compliance report has been developed by Intertek – CCRR-1010. The manufacturing of all products is monitored by a quality control program with inspections conducted by Intertek Testing Services to be in compliance to ICC -ES requirements.

These main standards or acceptance criteria for Fox Blocks ICFs code compliance are:

- AC353 – Acceptance Criteria for Stay-in-place, foam Plastic Insulating Form systems for Solid Concrete Walls
- ASTM E2634-11 - Standard for Flat Wall ICF Systems
- Can/ULC S717.1-12 – Standard for Flat Wall ICF Units

Within these standards are testing requirements that are required to be successfully completed to show compliance for various aspect of the building code, some of these are shown below:

- Fire, ignition and smoke
- Form capacity for hydrostatic pressure
- Tensile and shear strength of the ties
- Lateral and shear capacity or the ties for fasteners
- Structural design criteria
- Fire resistance ratings
- Air and vapor characteristics
- Thermal resistance

The ICC- IBC recognizes ICFs are a forming system for reinforced concrete walls following ACI 318 concrete design criteria

The ICC- IBC recognizes ICFs specifically in these sections R404 and R611.

The IECC recognizes ICFs as mass walls and as an integral part of a whole wall assembly utilizing the U-factor.

Fox Blocks is an approved product and code compliant across North America, to be designed and utilized on any building type from foundation to any height.

Fox Blocks Code Compliance Report CCRR-1010 is available in the Resource Center at www.foxblocks.com.

Review the Fox Blocks specifications (1.04.02) for a listing of compliance testing.

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