



Modular • Structural Security™ • Solutions

MCF Series iFortress™ Standards

The Structural Security™ standards to which the MCF Series iFortress™ has been engineered, tested, and rated, and each shall meet the following criteria:

1. The finished structure will be a fully rated, self-contained, airtight, water and hermetically sealed, energy efficient, re-usable, “Green” facility/assembly that tested as an assembly complies with:
 - a. Structural - IBC Exterior Building Code Standards
 - i. Roof Load – minimum 40 Lb/Ft²
 - ii. Wind Load – minimum 2 hours 75 mph sustained force
 - iii. Bending Stresses – minimum 13,000 lbs psi
 - iv. Seismic – Site Class D
 - v. Sound Transfer Classification – minimum STC 30
 - b. Fire/Thermal
 - i. Walls, Ceiling, Doors, Penetrations – Fully Rated Assembly against ASTM E119 - minimum 90 minutes
 - ii. Door NFPA 252 90 minute rating
 - iii. R value – Assembly – minimum r 22
 - c. Hydro-dynamics/Permeability
 - i. Airtight – NFPA 2001: Time (Size Dependent)
 - a) Annually recertified
 - ii. Encapsulation – ASTM E 1795-97 *
 - iii. Mildew Resistant – ASTM D3273/3274 *
 - iv. Permeability – ASTM D 1653 *
 - v. Weathering – ASTM G53/B 117 – Federal TT-C-555B *
 - vi. Humidity – ASTM D 4585 *
 - vii. ASTM E119 – Hose Stream Test
 - d. Environmental
 - i. “Green” – manufactured with recycled and recyclable materials, can be disassembled and relocated, re-used
 - ii. Insulated – energy efficient
 - iii. LEED component contributor – innovation point, Green, reduce operating cost, non-invasive field assembly (i.e. dust free assembly)
 - e. Blast
 - i. Blast load min 8psi/max 11.5 psi
 - ii. Tolerances/Criteria: No visible structural damage and all components will maintain 100% functionality after the explosion and to the blast overpressure.

- f. Interior Surfaces (Walls/Ceiling)
 - i. High reflectance white – minimum 85% reflectance quality
 - a) Reduction in light emanating sources/equipment/power consumption
- g. Warranty
 - i. Conditional Lifetime
 - a) Subject to annual recertified by Factory Authorized Agent