

**BXUVC.W019**  
**Fire Resistance Ratings**

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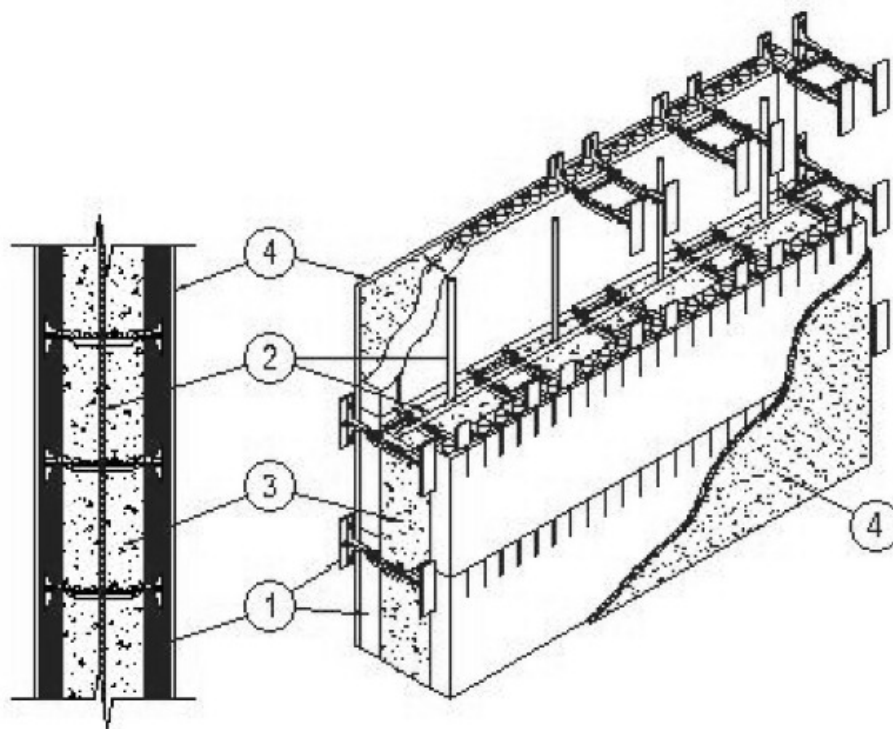
**Fire Resistance Ratings**

[See General Information for Fire Resistance Ratings](#)

**Design No. W019**

July 24, 2007

**Assembly Rating - 2, 3 or 4 h (See Item 1)**



**Bearing Wall**

- 1. **Insulated Concrete Forms** — CDEL (Guide No. 40 U18.45). Standard form units comprised of two 1219 mm by 305 mm by 57 mm thick expanded polystyrene (EPS) panels linked by High Density Polyethylene (HDPE) ties at 305 mm OC. Ties are colour coded for different wall cavity thicknesses and are field installed into EPS panels to create the ICF form. The minimum width of the ICF cavity is 96 mm as shown in the table below. Assembly ratings depend on width of ICF cavity as shown in table below:

| Assembly Rating, h | Min ICF Cavity Thickness, mm |
|--------------------|------------------------------|
| 2                  | 96                           |
| 3                  | 146                          |
| 4                  | 197                          |

**QUAD-LOCK BUILDING SYSTEMS LTD**

- 2. **Reinforcing Steel** — 10M reinforcing bars installed horizontally into each ICF course within polypropylene web notches. Reinforcing bars placed vertically at 400 mm OC into centre of ICFs.
- 3. **Sand-Limestone Concrete** — 2300 ± 50 kg/m<sup>3</sup> density, 20 MPa nominal compressive strength.
- 4. **Gypsum Wallboard** — 12.7 mm thick, 7.5 kg/m<sup>2</sup> minimum, 1220 mm wide gypsum wallboard fastened to flanges of HDPE ties with 50 mm long drywall screws at 305 mm OC vertically and horizontally. Joints covered with joint compound, covered with joint tape, and covered with an additional coat of joint compound. Screwheads covered with joint compound.

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