#### **TECHNICAL BULLETIN**

## Alleguard

### Fire Resistance Rating of Amvic<sup>™</sup> ICF

# Assembly Rating - 3 Hours Amvic<sup>™</sup> Insulated Concrete Forms 3 ASTM E119 CAN/ULC S101 Fire Rating Only - Load Rating Not Within The Scope of This Listing

- 1. CONCRETE: Pour normal weight concrete [density typically between 145-155 pcf (2323-2483 kg/m<sup>3</sup>)] having a minimum 28 MPa [4,000 psi (2.75 MPa)] nominal compressive strength into the forming system (Item 2).
- 2. CERTIFIED PRODUCT: Amvic<sup>™</sup> Insulated Concrete Forms (ICF)

FORMING SYSTEM: The Amvic<sup>™</sup> ICF forming system consists of Type 2 (CAN/ULC S701) or Type II (ASTM C578) molded expanded polystyrene (EPS) foam panels with embedded high density ties (webs) that come preassembled as blocks and are produced in nominal concrete core widths of 6 inch (152mm), 8 inch (203mm), 10 inch (254 mm), and 12 inch (305 mm) widths. The Amvic<sup>™</sup> ICF forming system are produced in 48 inches length x 16 inches height (1220 mm x 410 mm) for 6 inch and 8 inch concrete cores, and are produced in 48 inches length (1220 mm) x 24 inches height (610 mm) for 10 inch and 12 inch concrete cores. All Amvic<sup>™</sup> ICF products have an EPS panel thickness of 2.5 inches. The top and bottom of the EPS panels have an interlocking system which aligns the forms together

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as they are stacked together. Amvic<sup>™</sup> ICF systems have high density ties (webs) spaced at 6 inches on center in the cavity of the ICF that include flanges acting as furring strips for mechanical fastening.

- 3. SHEATHING, GYPSUM: Use minimum 1/2- inch (12.7mm) thick gypsum board, applied vertically to the interior face of the forming system (Item 2) when minimum 15-minute thermal barrier is required to separate the building's interior from forming system (Item 2). Gypsum board shall be fastened with 1-1/2 inch length Type "W" bugle head gypsum that penetrate the form tie (Item 4). Space screws a minimum 12 inches on center vertically and 16 inches horizontally on the forming system (Item 2) wall. A minimum of one layer of joint compound to be applied to joints and screw heads.
- 4. FORM TIES: Each 48 inches (1220 mm) of length, Amvic<sup>™</sup> ICF have eight ties (webs). The ties (webs) are spaced nominally 6 inches (152 mm) on center. The ties (webs) are open to allow the flow around of concrete, and to allow seating for the placement of horizontal and vertical reinforcement.
- REINFORCEMENT (Optional): Place the reinforcement before filling the forming system with concrete (Item 1). The rebar used is to be designed and placed per the applicable code requirements and approved by a registered design professional the appropriate authorities having jurisdiction.

- 6. EXTERIOR FINISHES: When desired, apply to the exterior side of the forming system (Item 2) wall assembly without diminishing the assembly rating: any Exterior Insulation Finish System (EIFS), any exterior stucco, brick or brick veneer, stone or stone veneer, cultured stone and siding made from vinyl, aluminum, wood, or steel. Apply exterior finishes in accordance with the manufacturer's instructions.
- WALL ASSEMBLY: Use the forming system (Item 2) wall assembly as either an interior or exterior wall. Cover interior walls with sheathing (Item 3), where required, on both sides of the forming system (Item 2). Only cover exterior walls with sheathing (Item 3) on the interior side, where required, of forming system (Item 2). Fire rating applied to forming system (Item 2) wall assembly from exterior side.

