



## AUTHORIZATION TO MARK

This authorizes the application of the Certification Mark(s) shown below to the models described in the Product(s) Covered section when made in accordance with the conditions set forth in the Certification Agreement and Listing Report(s). This authorization also applies to the Multiple Listee model(s) identified on the correlation page of the Listing Report. This document is the property of Intertek Testing Services and is not transferable. The Certification Mark(s) may be applied only at the location of the Party Authorized to Apply Mark.

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**Party Authorized to Apply Mark:** See following page(s)  
**Evaluation Center:** Intertek (Mississauga)

**Control/Client Number:** 247092

**Authorized By:**   
**Thomas J. Patterson, Director of Certification**

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This document supersedes all previous Authorizations to Mark for the noted Report Number.

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<b>Testing Standard{s}:</b>	:CAN / ULC S101 (2007):ASTM D1761 (2006):ICC-ES AC353 (2007):ASTM C578 (2009e1):CAN / ULC S701 (2011):ASTM E119 (2012a)
<b>Product:</b>	Polycrete Insulating Concrete Forms (ICF)

**ATM for Report** 10015130SAT, 3178559TOR, 3178560TOR,  
 3197280SAT, 100134559COQ

**ATM Issue Date:** 01/08/2015

**Listing Section(s): CONCRETE FORMS**

**CSI Code:** 03 10 00 Concrete Forming and Accessories

**Description:**

The Polycrete Bigblock 1600 Insulated Concrete forms are stacking form units, consisting of two flame-retardant Type 2 (CAN/ULC S701) / Type II (ASTM C578) expanded polystyrene (EPS) panels connected by steel mesh cross ties.

The Polycrete Flex 850 Insulated Concrete forms are stacking form units, consisting of two flame-retardant Type 3 (CAN/ULC S701) / Type IX (ASTM C578) expanded polystyrene (EPS) panels connected by steel wire cross ties linking to embedded 100% regrind PVC channels embedded in the EPS panels.

The forms are lightweight and create a monolithic wall when filled with concrete. Reinforcement bars may be placed to satisfy strength requirements for below or above grade load bearing walls, beams, lintels and shear walls.

**RATINGS**

Standard	Rating	Design Number
ASTM C578	Type II (Big Block 1600)	n/a
CAN/ULC S701	Type 2 (Big Block 1600)	n/a
ASTM C578	Type II (Flex 850)	n/a
CAN/ULC S701	Type 2 (Flex 850)	n/a
ASTM E119	Load Bearing 4 Hour	PII/ICF 240-01, PII/ICF 240-02
CAN/ULC S101		

**Party(s) Authorized by  
Manufacturer To Apply Mark:**

None

**Party(s) Authorized by Other Parties To Apply  
Mark:**

None

## **DRAWING INDEX**

PII/ICF 240-01 - Polycrete Big Block 1600 4 Hour Fire Rating

PII/ICF 240-02 - Polycrete Flex 850 4 Hour Fire Rating

## PII/ICF 240-01 - Polycrete Big Block 1600 4 Hour Fire Rating

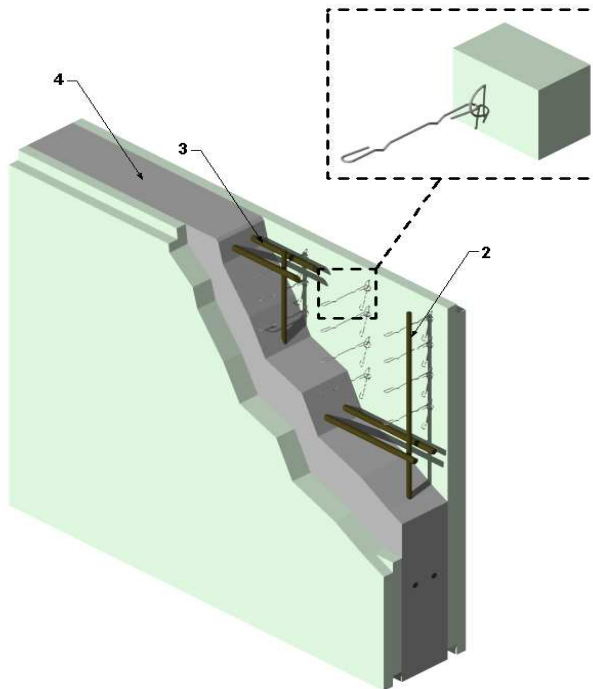
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**Design Number PII/ICF 240-01**  
**POLYCRETE INTERNATIONAL INCORPORATED**  
Polycrete Big Block 1600 Insulated Concrete Forms  
ASTM E119-11a  
ULC / CAN S101-07  
Fire Rating Only - Load Rating Not Within The Scope Of This Listing  
Assembly Rating - 4 Hours

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1. CERTIFIED MANUFACTURER: Polycrete International
  - a) CERTIFIED PRODUCT: Polycrete Big Block 1600 Insulated Concrete Forms (ICF).
  - b) FORMING SYSTEM: The Polycrete Big Block 1600 ICF forming system consists of Type 2 (CAN/ULC S701) or Type II (ASTM C578) molded expanded polystyrene (EPS) foam panels with embedded 0.160 inch diameter galvanized G90 steel wire ties

(minimum 80 ksi tensile strength) spaced 8 inches on center to form a grid pattern (see description of cross ties Section c and d). Big Block 1600 ICF are collapsible, and come preassembled as blocks and are produced in nominal concrete core widths of 6 inch (152mm), 8 inch (203 mm), 10 inch (254 mm), and 12 inch (305 mm) widths. The Polycrete Big Block 1600 ICF forming system are produced in 96 inches length x 24

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Date Created: December 5, 2011  
Project No: 3178559TOR-1



## PII/ICF 240-01 - Polycrete Big Block 1600 4 Hour Fire Rating (page 2 of 2)

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inches height (2440 mm x 610 mm) or 96 inches length x 12 inches height (2440 mm x 305 mm) for all Polycrete Big Block 1600 ICF concrete core thicknesses offered. All Polycrete Big Block 1600 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 as they are stacked together. Polycrete Big Block 1600 ICF systems have welded steel wire connecting the EPS panels, as outlined in Section 3 of this design listing. The steel wire is connected to embedded steel flat bar with flanges allowing mechanical fastening to the Big Block 1600 ICF. The forms are collapsible, for shipping and erection onsite.

c) **STEEL CROSS TIES:** Each 96 inches (2440 mm) of length, Polycrete Big Block 1600 ICF have 12 minimum 0.160" diameter G90 galvanized 80 ksi minimum tensile strength steel wire cross ties. The steel wire cross ties are spaced nominally 8 inches (203 mm) on center. The steel wire ties are welded forming an open mesh grid to allow the flow around of concrete, and to allow seating for the placement of horizontal and vertical rebar placement. The steel wire cross ties are connected to steel reinforcement embedded in the EPS panels. The steel flat bar is 96 inches (2440 mm) length, ½ inch (12.5 inches) width, and minimum 24 gauge 27 ksi minimum yield strength steel, creating flanges for anchoring of mechanical fasteners to the Polycrete Big Block 1600 ICF installed products.

2. **VERTICAL STEEL REINFORCEMENT:** Place the #5 steel reinforcing rebar at 24 inches vertically through the Polycrete Big Block 1600 ICF open steel wire mesh before filling the forming system with concrete (Item 4). If alternate rebars are used, the rebar must be designed per the applicable code requirements and approved by a registered design professional the appropriate authorities having jurisdiction.
3. **HORIZONTAL STEEL REINFORCEMENT:** Place the #5 steel reinforcing rebar at 24 inches horizontally through the Polycrete Big Block 1600 ICF open steel wire mesh before filling the forming system with concrete (Item

4). If alternate rebars are used, the rebar must be designed per the applicable code requirements and approved by a registered design professional the appropriate authorities having jurisdiction.

4. **CONCRETE:** Pour normal weight concrete (density typically between 145-155 pcf) having a minimum 28 MPa (4,000 psi) nominal compressive strength into the forming system (Item 1).
5. **EXTERIOR FINISHES (NOT SHOWN AND NOT REQUIRED):** When desired, apply to the exterior side of the forming system (Item 1) 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.
6. **THERMAL BARRIER (NOT SHOWN):** Use the forming system (Item 1) wall assembly as either an interior or exterior wall. Cover interior walls with code complying thermal barrier (not shown), where required, on both sides of the forming system (Item 1). Only cover exterior walls with code complying thermal barrier (Item 1) on the interior side, where required, of forming system (Item 1). Fire rating applied to forming system (Item 1) wall assembly from exterior or interior side.

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## PII/ICF 240-02 - Polycrete Flex 850 4 Hour Fire Rating

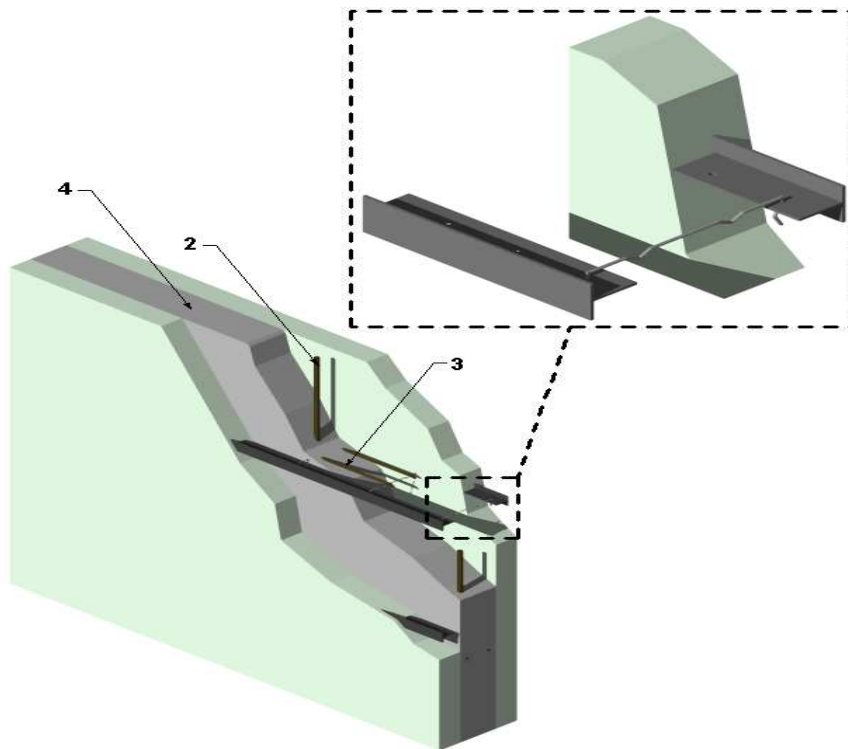
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**Design Number PII/ICF 240-02**  
**POLYCRETE INTERNATIONAL**  
Polycrete Flex 850 Insulated Concrete Forms  
ASTM E119-11a  
ULC / CAN S101-07  
Fire Rating Only - Load Rating Not Within The Scope Of This Listing  
Assembly Rating - 4 Hours

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1. CERTIFIED MANUFACTURER: Polycrete International
  - a) CERTIFIED PRODUCT: Polycrete Flex 850 Insulated Concrete Forms (ICF).
  - b) FORMING SYSTEM: The Polycrete Flex 850 ICF forming system consists of Type 3 (CAN/ULC S701) or Type IX (ASTM C578) molded expanded polystyrene (EPS)

foam panels with embedded 0.185 inch diameter galvanized G90 steel wire ties (minimum 80 ksi tensile strength) spaced 8 inches on (see description of cross ties Section c and d). Polycrete Flex 850 ICF are shipped as components, for assembly and erection on the jobsite. Polycrete Flex 850 are produced in nominal concrete core

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**Intertek**

**PII/ICF 240-02 - Polycrete Flex 850 4 Hour Fire Rating (page 2 of 2)**

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widths of 6 inch (152mm), 8 inch (203 mm), 10 inch (254 mm), and 12 inch (305 mm) widths. The Polycrete Flex 850 ICF forming system are produced in 96 inches length and 12 inches height (2440 mm x 305 mm) for all Polycrete Flex 850 ICF concrete core thicknesses offered. All Polycrete Flex 850 ICF products have an EPS panel thickness of 2.5 inches. The top and bottom of the EPS panels have an embedded 100% regrind PVC channel acting as an interlock system which aligns the forms together as they are stacked together. Polycrete Flex 850 ICF systems have 0.185 inch diameter steel wire connecting the EPS panels, as outlined in Section 3 of this design listing. The steel wire is connected to the embedded PVC channel with flanges, allowing mechanical fastening to the Polycrete Flex 850 ICF.

c) STEEL CROSS TIES: Each 96 inches (2440 mm) of length, Polycrete Flex 850 has 13/64 inch diameter (5 mm) holes in the PVC channel spaced at 1 inch on center allowing for connection of the steel wire. The steel wire is 0.185 inch diameter G90 galvanized of minimum 80 ksi yield strength spaced at maximum 8 inches on center. The steel wire cross ties are spaced nominally 8 inches (204 mm) on center. The steel wire cross ties allow the flow around of concrete, and to allow seating for the placement of horizontal and vertical rebar placement. The steel wire cross ties are connected to embedded 100% regrind PVC channel. The PVC channel is a T shape, with 2.75 inch width (70 mm) flange for mechanical fastening, and of 0.125 inches (3.2 mm) thickness, which are seated in the slots molded into the EPS panels.

2. VERTICAL STEEL REINFORCEMENT: Place the #4 steel reinforcing rebar at 16 inches vertically through the Polycrete Flex 850 ICF steel wire cross ties before filling the forming system with concrete (Item 4). If alternate rebars are used, the rebar must be designed per the applicable code requirements and approved by a registered design professional the appropriate authorities having jurisdiction.

3. HORIZONTAL STEEL REINFORCEMENT: Place the #4 steel reinforcing rebar at 12 inches horizontally through the Polycrete Flex 850 ICF steel cross ties before filling the forming system with concrete (Item 4). If alternate rebars are used, the rebar must be designed per the applicable code requirements and approved by a registered design professional the appropriate authorities having jurisdiction.
4. CONCRETE: Pour normal weight concrete (density typically between 145-155 pcf) having a minimum 28 MPa (4,000 psi) nominal compressive strength into the forming system (Item 1).
5. EXTERIOR FINISHES (NOT SHOWN AND NOT REQUIRED): When desired, apply to the exterior side of the forming system (Item 1) 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.
6. THERMAL BARRIER (NOT SHOWN): Use the forming system (Item 1) wall assembly as either an interior or exterior wall. Cover interior walls with code complying thermal barrier (not shown), where required, on both sides of the forming system (Item 1). Only cover exterior walls with code complying thermal barrier (Item 1) on the interior side, where required, of forming system (Item 1). Fire rating applied to forming system (Item 1) wall assembly from exterior or interior side.

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