

# BIG BLOCK 1600

**Certified**  
CCMC 13354-R

## Polycrete®

www.polycrete.com

1 800 436-1096

### Our Services

- Estimation and technical advice
- Tooling rental
- Insulated formwork precut and numbered at the factory
- Logistic service
- Training and technical support
- After-sales service

### Our Products



Big Block 24" x 96"



Masonry Panel 24" x 96"



Big Block 18" x 96"



Big Block 12" x 96"



Welded starting base



Joint hook



Joist hanger

Distributor

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# BIG BLOCK 1600

Resistant • Flexible • Eco-Friendly

## Polycrete®

Insulated Formwork

Le Logo FSC  
version anglaise  
à positionné!



# Polycrete® BIG BLOCK 1600

## Features and Benefits

- Permanent insulated formwork
- Incorporated wire mesh reinforcement
- Environmentally friendly

### Product Description

Insulated Concrete Form (ICF) systems for concrete building solution have evolved during the last two decades. The new Polycrete® Big Block ICF system brings a revolutionary solution with its sturdiness, performances and its fast setup installation.

The Polycrete® Big Block ICF system is manufactured with expanded polystyrene (EPS) embedding a steel wire mesh reinforcement. The wire mesh incorporated

### Available Sizes

- Block heights: 24" (61 cm), 18" (45.7 cm) and 12" (30.5 cm)
- Block length: 96" (244 cm)
- EPS thickness: 2-1/2" (6.4 cm)
- Concrete thicknesses: 5-5/8" (14.3 cm), 7-5/8" (19.4 cm), 9-5/8" (24.5 cm), 11-5/8" (29.5 cm), Other thicknesses on request

### Technical data: Typical physical properties of EPS insulation

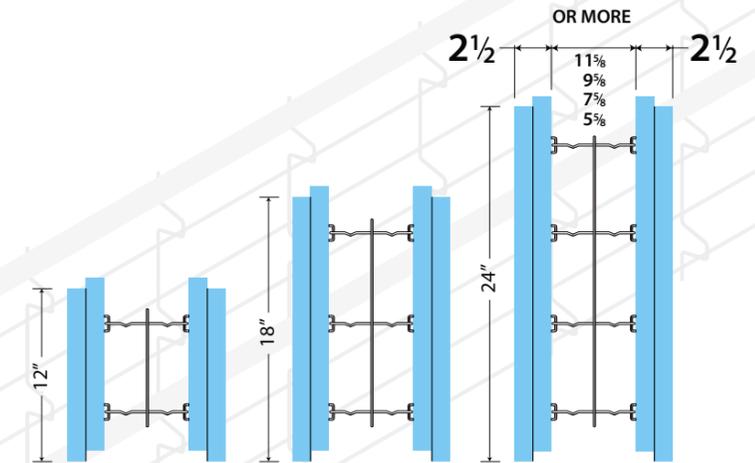
Physical properties	Imperial System	SI System	ASTM Test	EPS Type II
Thermal resistance: R value at 75 °F (24 °C) for 1 inch thickness (25 mm)	Sq. ft. °F hour / BTU	m² °C / W	C-518 C-177	4.0 min. (0.70) min.
Compressive strength (min.) at 10% distortion	lbs./sq. in. or psi	(kPa)	D-1621	16 110
Bending strength (min.)	lbs./sq. in. or psi	(kPa)	C-203	35 240
Dimensional stability: % of linear change (max.)	%	%	D-2126	1.5
Coefficient of thermal expansion (max.)	in./in./°F	(mm/mm/°C)	D-696	3.5 x 10 <sup>-5</sup> (6 x 10 <sup>-5</sup> °C <sup>-1</sup> )
Water vapor permeability (max.)	Perm	(ng/Pa.s.m²)	E-96	3.5 2000
Water absorption (max.)	%	%	D-2642	4
Effective temperature range: Continuous / Intermittent	°F / °F	(°C) / (°C)	-	167 (75) / 180 (82)
Flame spread rating	-	-	(CAN/ULC S102.2 M)	>140
Smoke developed	-	-	(CAN/ULC S102.2 M)	>380
Capillarity	-	-	-	Nil

### Each Polycrete® Big Block ICF is composed of the following components:

- Panels of expanded polystyrene (EPS type II).
- Steel wire mesh molded inside each EPS panel.
- Steel fastening strips welded to the wire mesh and molded inside the EPS panel.
- Foldable steel ties for the 2 EPS panels assembly.

Each expanded polystyrene panel measures 24" H x 96" L (61 cm x 244 cm), 18" H x 96" L (45.7 cm x 244 cm) and 12" H x 96" L (30.5 cm x 244 cm).

Standard EPS panel thickness is 2-1/2" (64 mm).



- High insulating value 6" wall = R-28\*
- Easy to install
- Foldable
- Designed to be used for residential, commercial and industrial buildings
- Accept all exterior sidings types such as stucco, acrylic system, brick veneer, vinyl, aluminum, and more
- The assembly ties system doesn't obstruct the flow of concrete during pouring
- Will resist to a pressure of 1600 pounds per sq. ft. during pouring concrete
- Offers no limit in design, height or thickness of wall

in the expanded polystyrene panels brings an extreme sturdiness and perfect wall stability.

The Polycrete® 24" Big Block ICF is the largest on the market. It covers 16 sq. ft. (1.49 m²) of wall. Its large surface and its very simple design bring a very fast and economic method to setup the product on the building site.

The Polycrete® Big Block ICF product is the only system on the market that resist to a lateral pressure of 1600 lbs. / sq. ft. (75 kPa) during pouring concrete.

It brings incomparable performances for ICF installation and concrete pour, but also a significant energy saving. The Big Block is definitively adding values as it gives security, durability, quietness and comfortable buildings.

All materials used in a Polycrete® ICF wall bring thermal insulation performances above all required standards.

### Product Specifications

The specifications are for 5-5/8" (14.3 cm) concrete walls.

- Thermal efficiency: R-28 \*
- Sound proofing: up to STC 60
- Fire resistance: 4 hours
- Durability:
  - Reinforced concrete construction
  - Resists earthquakes and tornados
  - Environmentally friendly
  - Energy savings
- Type II expanded polystyrene
- Metal fastening strips
- Coverage per block: 24" = 16 sq. ft. (1.49 m²)  
18" = 12 sq. ft. (1.12 m²)  
12" = 8 sq. ft. (0.74 m²)
- Polycrete® scaffolding and corners for installation  
\* With interior and exterior sidings

Assembly ties are available in 4 standard dimensions to provide concrete walls with 5-5/8" (14.3 cm), 7-5/8" (19.4 cm), 9-5/8" (24.5 cm) or 11-5/8" (29.5 cm) thickness. These standard dimensions are adjusted to fit with North American building material standards.

Assembly tie length can be adjusted during the manufacturing cycle upon request to provide any range of concrete wall thickness.

Steel fastening strips are welded to the steel wire mesh and molded inside each EPS Big Block panel.

Each fastening strip is steel strip of 1-1/4" (32 mm) wide, and a 22 gage thickness (0.83 mm).

These fastening strips are used to fix the interior and exterior wall finishing. They are also used to fix the corner guides, the scaffoldings and optional form molds during the installation of the Polycrete® Big Block ICF walls.

