

BUILDING PRODUCTS LISTING PROGRAM

Customer: Logix Brands, Ltd.
Class: Insulated Concrete Forms (ICF)
Location: Whistler, BC Canada
Website: www.logixicf.com
Listing No. B1031-1
Project No. B1031-1, Edition 3
Effective Date: September 27, 2010
Last Revised: January 25, 2022

Standards: CAN/ULC S717.1 *Standard for Flat Wall Insulating Concrete Form (ICF) Systems.*
ASTM E2634 *Standard Specification for Flat Wall Insulating Concrete Form (ICF) Systems.*
ASTM D1761 *Standard Test Methods for Mechanical Fasteners in Wood and Wood-Based Materials.*
CAN/ULC S701.1 *Thermal Insulation, Polystyrene, Boards and Pipe Covering.*
ASTM C578 *Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation.*
CAN/ULC S102.2 *Standard Method of Test for Surface Burning Characteristics of Flooring, Floor Coverings, and Miscellaneous Materials and Assemblies.*
ASTM E84 *Standard Test Method for Surface Burning Characteristics of Building Materials.*
UBC 26-3 *Room Fire Test Standard for Interior of Foam Plastic Systems.*
ASTM D635 *Standard Test Method for Rate of Burning and/or Extent and Time of Burning of Plastics in a Horizontal Position.*
ASTM D1929 *Standard Test Method for Determining Ignition Temperature of Plastics.*
ASTM E119 *Standard Test Methods for Fire Tests of Building Construction and Materials.*
CAN/ULC S101 *Standard Methods of Fire Endurance Tests of Building Construction and Materials.*
UL 263 *Standard for Fire Tests of Building Construction and Materials.*

Product: Logix Insulated Concrete Forms (ICF)

Markings: Product is marked with labels supplied by Logix Brands Ltd. Products are marked in a permanent manner where it is readily visible after installation with the following:

- a) Manufacturer's name or trademark
- b) Product model designation
- c) Month and year of manufacture
- d) QAI file Number: B1031-1
- e) CAN/ULC S701.1 Type 2, ASTM C578 Type II, ASTM E84 FSI and SDI Rating (FSI \leq 25 / SDI \leq 450) and CAN/ULC S102.2 FSI and SDI ratings (FSI \leq 230 / SDI \geq 500).
- f) QAI logo shown here:



Models / Ratings: **Logix ICF complies with specifications for flat-walled ICF in accordance with CAN/ULC S717.1.**

Logix ICF complies with specifications for flat-walled insulated concrete forms in accordance with ASTM E2634.

Logix ICF cross ties have a spontaneous ignition temperature \geq 650°F when evaluated in accordance with ASTM D1929.

Logix ICF cross ties have a rate of burning of CC2 when evaluated in accordance with ASTM D635.

Logix ICF has the following allowable fastener load capacities determined in accordance with CAN/ULC S717.1 / ASTM E2634 following ASTM D1761:

FASTENER	ALLOWABLE WITHDRAWAL		ALLOWABLE LATERAL SHEAR	
	lbs	kg	lbs	kg
#6 1-¼ inch Length Coarse Thread Drywall Screw.	23	10	59	26

Fasteners are to penetrate through flange of cross-tie.

Logix ICF Expanded Polystyrene (EPS) Thermal Insulation Type 2 Specifications per CAN/ULC S701.1

PROPERTY	LOGIX ICF EPS SPECIFICATIONS
Thermal Resistance m ² *°C/W at 25 mm Thickness	Minimum 0.70
Water Vapour Permeance Ng/Pa*s*m ² at 25 mm Thickness	Maximum 200
Dimensional Stability % Linear Change	Maximum 1.5
Flexural Strength kPa	Minimum 240
Water Absorption % Volume	Maximum 4.0
Compressive Strength kPa at 10% Deformation	Minimum 110
Limiting Oxygen Index %	Minimum 24

Logix ICF EPS Thermal Insulation Type II Specifications per ASTM C578

PROPERTY	LOGIX ICF EPS SPECIFICATIONS
Compressive Resistance psi at Yield or 10% Deformation	Minimum 15.0
Thermal Resistance F*ft ² *h/Btu at 1.00 Inch Thickness	Minimum 4.0
Flexural Strength psi	Minimum 35.0
Water Vapor Permeance Perms at 1.00 Inch Thickness	Maximum 3.5
Water Absorption % Volume	Maximum 3.0
Dimensional Stability % Change Dimensions	Maximum 2.0
Oxygen Index % Volume	Minimum 24.0
Density lbs/ft ³	Minimum 1.35

Logix ICF Surface Burning Characteristics per CAN/ULC S102.2

SUPERFORM COMPONENT	DENSITY	MAXIMUM THICKNESS	FLAME SPREAD INDEX (FSI)	SMOKE DEVELOPED INDEX (SDI)
Expanded Polystyrene (EPS Panel)	22 – 29 kg/m ³	100 mm Maximum	≤ 250	≥ 500

Logix ICF Surface Burning Characteristics per ASTM E84¹

SUPERFORM COMPONENT	DENSITY	MAXIMUM THICKNESS	FLAME SPREAD INDEX (FSI)	SMOKE DEVELOPED INDEX (SDI)
Expanded Polystyrene (EPS Panel)	1.35 – 1.65 lbs/ft ³	4.0 Inches Maximum	≤ 25	≤ 450

¹Ceiling Measurement Only. This measurement is conducted through determination of flame spread index and smoke developed index with the removal of any contribution of molten materials ignited on the floor of the tunnel assembly.

Logix ICF UBC 26-3 Configuration

Meets requirements with ½ inch thickness gypsum fastened with 2-¼ inch length standard drywall screws at 12 inches on center spacing in the field and around the perimeter. Fasteners must be anchored into Logix ICF web ties.

Logix ICF CAN/ULC S101, UL 263, ASTM E119 Fire-Resistance Rated Load-Bearing Wall Assemblies

QAI Design #	Wall Type	Wall Thickness Inches (mm)	Rating
B1031-1	Logix ICF with interior 5/8" (16 mm) gypsum board complying with ASTM C1396.	4 (102)	2
		6.25	3
		6.25 ¹	4
		8	4

Note 1: An additional layer of 5/8" (16 mm) Type X gypsum board is required to meet the 4 hour fire-resistance rating as outlined in QAI design listing B1031-1.

The above Logix ICF fire-resistance rated wall assemblies allowable load are to be determined by a registered design professional, or authority having jurisdiction in accordance with the applicable codes.

Notes: Final acceptance of the product in the intended application is to be determined by the authority having jurisdiction.

Product is to be installed in accordance with the manufacturer’s published installation instructions by qualified installing personnel. Also see QAI CER_{US}-1005

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