

BUILDING PRODUCTS LISTING PROGRAM

Class: Insulated Concrete Forms (ICF)

Customer: LOGIX Insulated Concrete Forms, Ltd.

Location: Vancouver, BC

Website: www.logixicf.com

Listing No. B1031-1

Effective Date: September 27, 2010

Last Revised: August 24, 2015

Expires: N/A

Product: LOGIX Flat Wall Insulating Concrete Forms (ICF)

Standard(s): ASTM E2634 "Standard Specification for Flat Wall Insulating Concrete Form (ICF) 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 D1761 "Standard Test Methods for Mechanical Fasteners in Wood".

CAN/ULC S717.1 "Standard for Flat Wall Insulating Concrete Form (ICF) Systems".

CAN/ULC S701 "Thermal Insulation, Polystyrene, Boards and Pipe Covering".

CAN/ULC S102.2 "Standard Method of Test for Surface Burning Characteristics of Flooring, Floor Coverings, and Miscellaneous Materials and Assemblies".

ASTM C578 "Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation".

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".

CAN/ULC S101 "Standard Methods of Fire Endurance Tests of Building Construction and Materials".

ASTM E119 / ANSI / UL 263 "Standard Test Methods for Fire Tests of

Building Construction and Materials”.

Label: Product is marked with labels supplied by LOGIX Insulated Concrete Forms, Ltd. The label includes the manufacturer’s name, trademark, or other recognized symbol of identification, the product model designation, month and year of manufacture or equivalent, QAI logo with the ‘US’ and “C” identifier, and CAN/ULC S701 Type 2, ASTM C578 Type II, ASTM E84 FSI and SDI Rating, and CAN/ULC S102.2 FSI and SDI Rating. Labels are applied to palletized finished products to ensure visibility on the jobsite.

Ratings: LOGIX Insulated Concrete Forms are Type II expanded polystyrene of nominal 1.5 lbs/ft³ density, complying with ASTM E2634 for use as flat walled insulating concrete forms.

LOGIX ICF cross ties are minimum CC2 classification per ASTM D635, with a spontaneous ignition temperature of greater than 650°F per ASTM D1929.

The following outlines LOGIX ICF test results determined in accordance with the noted standards.

LOGIX ICF Fastener Resistance Ratings per 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

LOGIX ICF Type 2 Specifications per CAN/ULC S701

PROPERTY	LOGIX SPECIFICATION
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
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LOGIX ICF Type II Specifications per ASTM C578

PROPERTY	LOGIX SPECIFICATION
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

LOGIX COMPONENT	DENSITY	MAXIMUM THICKNESS	FLAME SPREAD INDEX (FSI)	SMOKE DEVELOPED INDEX (SDI)
Expanded Polystyrene (EPS Panel)	22 – 29 kg/m ³	100 mm Maximum	≤ 210	≥ 500

LOGIX ICF Surface Burning Characteristics per ASTM E84¹

LOGIX COMPONENT	DENSITY	MAXIMUM THICKNESS	FLAME SPREAD INDEX (FSI)	SMOKE DEVELOPED INDEX (SDI)
Expanded Polystyrene (EPS Panel)	1.35 – 1.80 lbs/ft ³	4.0 Inches Maximum	≤ 75	≤ 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 UBC 26-3 Configuration

Meets requirements with ½ inch thickness gypsum fastened with 2 ¼ inch length standard drywall screws at 12 inch on center. Fasteners must be anchored into LOGIX ICF web ties.

**QAI Design Listing B1031-1 LOGIX Insulated Concrete Form
(ICF) – CAN/ULC S101 / ASTM E119
Load Bearing Fire-Resistance-Rated Wall Assembly¹**

QAI DESIGN LISTING	ASSEMBLY RATING (Hours)	MINIMUM CONCRETE CORE THICKNESS (MM)	MINIMUM CONCRETE CORE THICKNESS (INCHES)
B1031-1	2	102	4
	3	159	6.25
	4	204	8

Note: 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.

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