

Amvic ICF Plus 3.30 Specification Sheet

Manufacturer

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Product Description

Amvic Insulated Concrete Forms (ICFs) are stay-in-place forms manufactured using two 3.25" panels of Type 2 1.5lb/cf density Expanded Polystyrene (EPS) held together by polypropylene webs placed 8" on center. The forms offer a "5 in 1" system that provides structure, insulation, vapor barrier, sound barrier and attachments for drywall and exterior siding in one.

Completed Amvic ICF walls offer an R-Value of 30+, a performance R Value of 50+ when concrete



thermal mass is included, an STC rating of 50+ and a fire rating of 3 hrs+ (for a 6" core or more).

Type of ICF: Flat Wall
Materials: EPS beads, polypropylene Webs

Methods of Manufacturing: Molded raw beads through pressurized steam, Injection molded webs

Product Features

Amvic ICFs offer the following features which ensure exceptional quality and reduce construction time and labour costs.

- Form Capacity Strength of 865 lbs./sq.ft.
- Fully reversible FormLock™ interlocking system with a depth of 1" which provides superior connection strength
- Webs have built-in clips which can hold 2 courses of reinforcing steel and place it most effectively to maximize structural strength
- Can withstand internal vibration
- Manufactured with over 60% recycled materials
- Generates less than 1% construction waste
- Can contribute 12 or more LEED points

Specifications Chart

Product	Core	Dimensions L x H x W	Concrete volume per form	Concrete Volume Per Sq ft M ² of wall area	Surface Area Per form
Amvic Plus 6" straight	6"	48" x 16" x 12.5"	0.099 Cu-yd	0.019 cu-yd	5.33 ft ²
Reversible	152 mm	(1.22 x 0.41 x 0.32)	0.076m ³	0.014 m ³	0.50 m ²
Amvic Plus 6" 90° corner	6"	[43 + 27] x 16 x 12.5	0.119 cu-yd	0.015 cu yd	7.78 sq. ft
Reversible	152 mm	[(1.09 + 0.68] x 0.41 x 0.31)	0.091 m ³	0.011 m ³	0.72 m ²
Amvic Plus 6" 45° corner	6"	[36 + 20] x 16 x 12.5	0.090 cu yd	0.013 cu yd	6.22 sq ft
Reversible	152 mm	[(0.91 + 0.51] x 0.41 x 0.31)	0.069 m ³	0.010 m ³	0.58 m ²
Amvic Plus 6" Taper Top	6"	48" x 16" x 12.5" -10.75" (top concrete width)	0.111 cu yd	0.021 cu yd	5.33 ft ²
	152 mm	(1.22 x 0.41 x 0.32 - 0.27 mm (top concrete width)	0.085m ³	0.017 m ³	0.50 m ²
Amvic Plus 6" Brick ledge	6"	48" x 16" x 12.5" + 5" for B/L total 17.5"	0.138 cu yd	0.026 cu yd	5.33 ft ²
	152 mm	(1.22 x 0.41 x 0.32 + 0.12 total 0.44)	0.105m ³	0.020 m ³	0.50 m ²
Amvic Plus 8" Straight	8"	48" x 16" x 14.5"	0.132 cu yds	0.024 cu yd	5.33 ft ²
Reversible	203 mm	(1.22 x 0.41 x 0.36)	0.101 m ³	0.018 m ³	0.50 m ²
Amvic Plus 8" 90° corner	8"	[45 + 29] x 16" x 14.5"	0.159 cu yds	0.019 cu yd	8.22 ft ²
Reversible	203 mm	[(1.14 + 0.73] x 0.41 x 0.36)	0.121 m ³	0.015 m ³	0.76 m ²
Amvic Plus 8" 45° corner reversible	8"	[36.125 + 20.125] x 16 x 14.5	0.115 cu. Yds.	0.018 cu yd	6.25 sq ft
	203 mm	[(0.917 + 0.51] x 0.41 x 0.36.83)	0.088 m ³	0.015 m ³	0.58 m ²
Amvic Plus 8" Taper Top	8"	48" x 16" x 14.5" -12.75" (top concrete width)	0.144 cu yd	0.027 cu yd	5.33 ft ²
	203 mm	(1.22 x 0.41 x 0.36 - 0.32 mm (top concrete width)	0.110 m ³	0.022 m ³	0.50 m ²

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USA		
Expanded Polystyrene in accordance with ICBO ES AC12 "Acceptance Criteria for Foam Plastic Insulation" in Conjunction with ASTM C578-95	Requirement	Amvic Results
1 - Expanded Polystyrene Testing ASTM C578-95		
Density (ASTM C 1622-98)	1.35 lbs/ft ³	1.5 lbs/ft ³
Thermal Resistance (ASTM C 177-97)	4.0 F.ft ² .h/Btu	4.0 F.ft ² .h/Btu
Compressive Strength (ASTM D 1621-10)	15.0 psi	20.09 psi
Flexural Strength (ASTM C 203-059)	40.0 psi min.	50.5 psi
Water Vapor Permeance (ASTM E 96-94)	200 max ng/Pa.s.m ²	130.1 ng/Pa.s.m ²
Water Absorption (ASTM C272-91)	3.0% by vol max	2.95%
Dimensional Stability (ASTM D 2126-94)	2.0% max	0.52%
Limiting Oxygen Index (ASTM D 2863-97)	24% min	37%
Trueness and Squareness (ASTM C 550-95)		
Edge Trueness	0.03125 in/ft max	0.0197 in/ft
Face Trueness	0.03125 in/ft max	0.0197 in/ft
Length and Width Squareness	0.0625 in/ft max	0.0295 in/ft
2 - Plastic Tie Testing ICBO ES AC116		
Fastener Withdrawal (ASTM D1761-99)	N/A	39.61 lbs Safety Factor of 5
Fastener Shear Strength (ASTM D1761-99)	N/A	60.22 lbs Safety Factor of 3.2
Tensile Strength (ASTM D638-99)	N/A	810 lbs at Ambient Temperature
3 - Fire Testing		
Room Fire Test (UBC 1997 26-3)	N/A	Passed/Complied
Other Testing		
A - Flammability ASTM E 84		
Flame Spread	25 max	25 or less
Smoke Developed	450 max	450 or less
B - Fire Burning Characteristics of Plastic Ties		
Ignition Temperature (ASTM D1929-68 (1975))	329 (C) 650 (F) min	400 (C) 752 (F)
Burn Rate (ASTM D635-98)	40 mm/min max	20.2 mm/min
Smoke Density (ASTM D2843-93)	75%	25.80%

Applications

Amvic ICF can be used both below and above grade for single and multi-storey residential, commercial, institutional and industrial construction.

Major Code Approvals

Amvic is approved by the following agencies:

- ICC-ES Report #1269
- CCMC Report #13043-R
- And other regional code bodies.

Technical Information and Support

Amvic has a comprehensive ICF Technical & Installation Manual available in print, on CD and on our website which covers detailed installation and technical information. Additional technical information is available on our website. If you require any other technical support please do not hesitate to contact our engineering department at 1 877 470 9991 ext 114.

Availability

Amvic ICFs are produced at multiple locations across North America and are available for purchase through Amvic's extensive network of Authorized Distributors.

CANADA		
Expanded Polystyrene in Accordance with Canadian Construction Material Center (CCMC) Technical Guide for "Modular Expanded - Polystyrene Concrete Forms" Master Format Section 03131 "	Requirement	Amvic Results
1 - Expanded Polystyrene Testing CAN/ULC S701-97, Type II		
Thermal Resistance (ASTM C177-97)	0.7 m ² °C/W min	0.7 m ² °C/W
Water Vapor Permeance (ASTM E 96-94)	200 ng/Pa.s.m ² max	130.1 ng/Pa.s.m ²
Dimensional Stability (ASTM D 2126-94)	1.5% max	0.52%
Flexural Strength (ASTM C 203-99)	240 KPa min	314.6 KPa
Water Absorption (ASTM D2842-97)	4.0% by vol max	0.93%
Compressive Strength (ASTM D 1621-94)	110 KPa min	136.5 Kpa
Limiting Oxygen Index (ASTM D 2863-97)	24% min	37%
2 - Plastic Web Testing CCMC Technical Guide		
Tensile Strength (ASTM D638-99)	N/A	810 lbs
Fastener Withdrawal (ASTM D1761-99)	N/A	198.04 lbs
Fastener Shear Strength (ASTM D1761-99)	N/A	226.08 lbs
3 - Forming Capacity Test section 6.4.4 of CCMC Technical Guide for Modular Expanded Polystyrene		
Forming Capacity	25 KPa (522 lbs/ft ²)	41.4 Kpa (865 lbs/ft ²)
Other Testing		
1 - Flammability CAN.4-S102.2		
Flame Spread	N/A	210
Smoke Developed	N/A	400-450
CANADA & USA		
1 - Fire Resistance Rating CAN/ULC S101-M89 and ASTM E119		
6 in wall with Drywall	N/A	3 hrs +
2 - 15 Minute Stay in Place Fire Test CAN/ULC S101-04 and ASTM E119-00a		
6 in wall with drywall	N/A	Passed/Complied

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