

R22 Insulated Concrete Forms

Amvic Insulated Concrete Forms (ICF) are stay in place formwork manufactured using two 2.5" (63.5mm) Type II/Type 2, closed cell, Expanded Polystyrene (EPS) panels connected by polypropylene webs placed at 6" (152mm) on center.

The forms offer a 6-in-1 system that provides structure, insulation, vapor barrier, air barrier, sound attenuation and attachments for interior finishes and exterior cladding.

Completed Amvic ICF walls offer a sustainable and resilient building structure with R-Value of 22, STC rating of 50+ and a fire resistance rating (FRR) of 3+ hours.

Applications

- Below and above grade walls
- Frost walls
- Additions to existing buildings
- Multi-story residential and commercial construction
- Demising walls in high-rise construction
- Institutional buildings
- High wind/hurricane areas

Amvic ICF ensures exceptional quality, reduced construction time and labor costs.

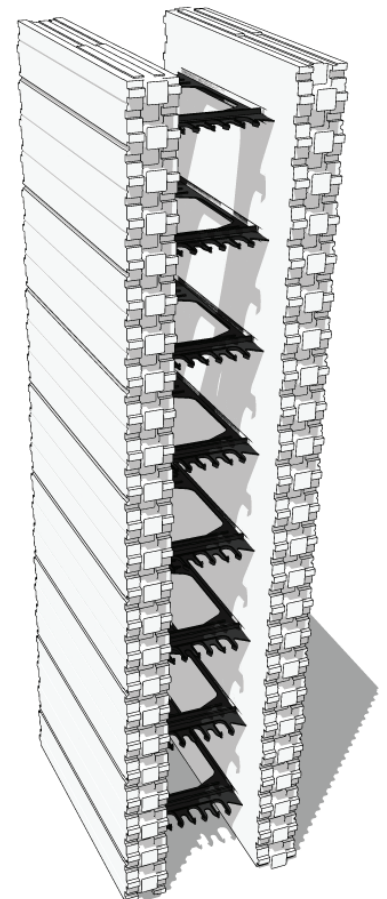
- One of the strongest ICF with form capacity strength of 865 psf (41.4 kPa).
- Fully reversible FormLock™ interlocking system with a depth of 1" (25mm) which provides superior connection strength between blocks.
- Webs have built-in clips which can hold two courses of reinforcing steel greatly reducing the need for additional tying.
- Withstands internal vibration.
- Manufactured with over 60% recycled materials (by weight).
- Generates less than 1% construction waste.

Code Approvals

- CCMC Report #13043-R
- ICC-ES Report #1269
- QAI Listing #B1061-2
- State of Florida
- State of Wisconsin

Physical Properties Table as per ASTM C578 and CAN/ULC S701

Density	ASTM C1622	1.5 lb/ft ³ (24 kg/m ³)	
Compressive Strength	ASTM D1621	19.80 psi (136.5 kPa)	
Flexural Strength	ASTM C203	42.57 psi (293.5 kPa)	
Thermal Resistance	ASTM C177	4.0 F.ft ² .hr/Btu (0.70 m ² K/W)	
Water Vapor Permeance	ASTM E96	2.27 US perm (130 ng/Pa.s.m ²)	
Water Absorption	ASTM C2842	0.93%	
	ASTM C272	2.95%	
Dimensional Stability	ASTM D2126	0.52%	
Limiting Oxygen Index	ASTM D2863	37.0%	
Trueness and Squareness (maximum)	ASTM C550	Edge:	0.03125 in/ft
		Face:	0.03125 in/ft
		Length and Width:	0.06250 in/ft
Surface Burning Characteristics	ASTM E84	Flame Spread:	25 or less
		Smoke Developed:	450 or less
	CAN/ULC-S102	Flame Spread:	210
		Smoke Developed:	400-450
Form Capacity Strength	CCMC Section 6.4.4	865 psf (41.4 kPa)	
Fire Resistance Rating (FRR)	CAN/ULC-S101	3+ hrs	



Design Specifications Table

Block Type	Core Size	Block Dimensions L*H*W	Concrete Volume Per Block	Concrete Volume Per ft ² of Wall Area	Surface Area Per Block
Straight	4" (102mm)	48 x 16 x 9" (1219 x 406 x 229mm)	0.066 yd ³ (0.050 m ³)	0.012 yd ³ (0.009 m ³)	5.33 ft ² (0.50 m ²)
Short 90° Corner	4" (102mm)	[24.5+12.5] x 16 x 9" ([622+318] x 406 x 229mm)	0.037 yd ³ (0.028 m ³)	0.009 yd ³ (0.007 m ³)	4.11 ft ² (0.38 m ²)
Short 45° Corner	4" (102mm)	[21+9] x 16 x 9" ([533+229] x 406 x 229mm)	0.036 yd ³ (0.027 m ³)	0.011 yd ³ (0.008 m ³)	3.33 ft ² (0.31 m ²)
Straight	6" (152mm)	48 x 16 x 11" (1219 x 406 x 279mm)	0.099 yd ³ (0.076 m ³)	0.019 yd ³ (0.014 m ³)	5.33 ft ² (0.50 m ²)
Short 90° Corner	6" (152mm)	[26.5+14.5] x 16 x 11" ([673+368] x 406 x 279mm)	0.059 yd ³ (0.045 m ³)	0.013 yd ³ (0.010 m ³)	4.56 ft ² (0.42 m ²)
Long 90° Corner	6" (152mm)	[48+24] x 16 x 11" ([1219+610] x 406 x 279mm)	0.126 yd ³ (0.096 m ³)	0.016 yd ³ (0.012 m ³)	8.00 ft ² (0.74 m ²)
Short 45° Corner	6" (152mm)	[21.25+9.25] x 16 x 11" ([540+235] x 406 x 279mm)	0.053 yd ³ (0.040 m ³)	0.015 yd ³ (0.011 m ³)	3.39 ft ² (0.31 m ²)
Brick Ledge	6" (152mm)	48 x 16 x 16" ¹ (1219 x 406 x 406mm) ¹	0.138 yd ³ (0.105 m ³)	0.026 yd ³ (0.020 m ³)	5.33 ft ² (0.50 m ²)
Double Taper Top	6" (152mm)	48 x 16 x 11" ² (1219 x 406 x 279mm) ²	0.108 yd ³ (0.083 m ³)	0.020 yd ³ (0.015 m ³)	5.33 ft ² (0.50 m ²)
Straight	8" (203mm)	48 x 16 x 13" (1219 x 406 x 330mm)	0.132 yd ³ (0.101 m ³)	0.025 yd ³ (0.019 m ³)	5.33 ft ² (0.50 m ²)
Short 90° Corner	8" (203mm)	[28.5+16.5] x 16 x 13" ([724+419] x 406 x 330mm)	0.083 yd ³ (0.063 m ³)	0.017 yd ³ (0.013 m ³)	5.00 ft ² (0.46 m ²)
Long 90° Corner	8" (203mm)	[48+24] x 16 x 13" ([1219+610] x 406 x 330mm)	0.162 yd ³ (0.124 m ³)	0.020 yd ³ (0.015 m ³)	8.00 ft ² (0.74 m ²)
Short 45° Corner	8" (203mm)	[22+10] x 16 x 13" ([559+254] x 406 x 330mm)	0.073 yd ³ (0.056 m ³)	0.021 yd ³ (0.016 m ³)	3.56 ft ² (0.33 m ²)
Brick Ledge	8" (203mm)	48 x 16 x 18" ³ (1219 x 406 x 457mm) ³	0.171 yd ³ (0.131 m ³)	0.032 yd ³ (0.024 m ³)	5.33 ft ² (0.50 m ²)
Double Taper Top	8" (203mm)	48 x 16 x 13" ⁴ (1219 x 406 x 330mm) ⁴	0.141 yd ³ (0.108 m ³)	0.026 yd ³ (0.020 m ³)	5.33 ft ² (0.50 m ²)
Straight ⁵	10" (254mm)	48 x 24 x 15" (1219 x 610 x 381mm)	0.247 yd ³ (0.189 m ³)	0.031 yd ³ (0.024 m ³)	8.00 ft ² (0.74 m ²)
Short 90° Corner	10" (254mm)	[42.5+18.5] x 24 x 15" ([1080+470] x 610 x 381mm)	0.225 yd ³ (0.172 m ³)	0.022 yd ³ (0.017 m ³)	10.17 ft ² (0.94 m ²)
Straight ⁵	12" (305mm)	48 x 24 x 17" (1219 x 610 x 432mm)	0.296 yd ³ (0.226 m ³)	0.037 yd ³ (0.028 m ³)	8.00 ft ² (0.74 m ²)
Short 90° Corner	12" (305mm)	[38.5+20.5] x 24 x 17" ([978+521] x 610 x 432mm)	0.243 yd ³ (0.186 m ³)	0.025 yd ³ (0.019 m ³)	9.83 ft ² (0.91 m ²)

¹ 11" (279mm) block width at the base

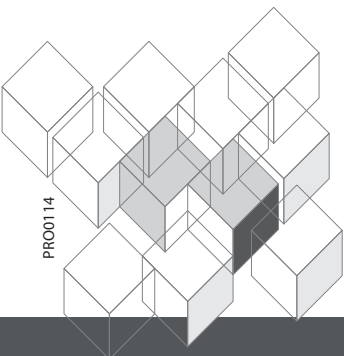
² 13" (330mm) block width at the base

³ 9.5" (241mm) concrete bearing width at the top

⁴ 11.5" (292mm) concrete bearing width at the top

⁵ Single taper top block is available for special order, see product drawings on Amvic's website

6" (152mm) and 8" (203mm) T-Block design specifications are available as product drawings on Amvic's website



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