Building better... it all starts here

amvic building system

Product Catalog

Our Products
stronger every day

The Amvic ICF Difference

Formlock™ Interlocking System

Amvic is the only ICF on the market to use the unique *FormLock™* interlocking system. The system ensures a tight and secure interlock between forms due to deep grooves that virtually align themselves providing greater connection strength without the need for gluing or taping. As a result, when concrete is poured into Amvic ICFs the likelihood of separation is very low. *FormLock™* also allows the forms to be fully reversible making the stacking process quick and easy, saving labour costs.

Superior Strength

Amvic ICFs are manufactured using 2.5 inches of 1.5lb/cf density EPS foam on each side of the form. These panels are very rigid, therefore maintain shape, remain straight and plumb and require less bracing during concrete pouring and curing. Amvic ICF is also one of few ICFs on the market that can withstand internal vibration, which ensures proper concrete consolidation and creates a strong and structurally superior wall.

Amvic ICF is the strongest ICF on the market as proven by Canadian Construction Material Center (CCMC) forming capacity strength test (Technical Guide 03131) at 865 lbs. / sq. ft. Currently Amvic ICF is the only form on the market to pass this test.

Innovative Web Design

Amvic ICF has web placement 6” on centre vs. 8” on centre in many competitive forms. Most cut-off pieces can be used resulting in less than 1% construction waste compared to up to 6% for most competitors. The webs are also manufactured using more raw material than in other ICFs, which results in a greater rigidity and allows for an ultimate 198 lb pull out strength for interior and exterior attachments.

Amvic webs have a unique rebar holding system with built in clips that hold rebar securely in place without tying. They also place rebar at the most effective areas of the form to maximize structural strength. The rebar slots are deep enough to fit two courses of rebar making contact lap splices easy to achieve. This system is effective in saving time and labour while providing a superior reinforced wall.

Outstanding Performance

The EPS insulation used in Amvic ICF is comprised of a collection of closed plastic cells that together with concrete walls prevent air movement around the perimeter of a structure creating an airtight seal and providing performance equivalent to an insulation level of R40-50. An assembled Amvic ICF wall of a 6" concrete core or greater has a fire rating of 3 hours +. In addition, while conventionally built structures have a sound transmission class (STC) rating of 36-38 an Amvic structure has an STC rating of 50 +.

User Benefits

Minimal Tool and Equipment Investment

Cranes, forklifts, man and masonry block lifts, cement mixers, heaters, tarps, all become obsolete with ICF construction. A handsaw, foam gun, portable rebar cutter and bracing are all that are required for ICF construction and electricity is not mandatory on an ICF jobsite.

Labor Savings

Amvic's 5 in 1 system incorporating structure, insulation, vapor barrier, sound barrier and attachments for drywall and exterior siding reduces the steps required during construction.

The foundation, above-grade exterior walls and framing of interior walls and roof can all be done using only one construction crew.

Due to Amvic's *Formlock™* technology and unique webs there is no need to glue, tape or tie.

Amvic Forms are fully reversible, making the stacking process quick and easy.

Since Amvic blocks are more rigid than competing blocks, less bracing is required during installation.

Amvic ICF is the easiest, most user friendly block on the market and therefore greatly reduces your labor requirements.

Ease of Construction

At 6 lbs on average per form you can benefit from commercial grade construction without heavy machinery costs.

Little effort is required to lift and carry forms which greatly reduce the number of back strains and injuries on site.

The weight of 1 sq. ft of masonry wall is equivalent to the weight of over 42. sq. ft of an Amvic ICF wall.

The webs also allow for accurate placement for reinforcing bars (rebar) so that steel stays properly located before and after concrete pours.

Design Flexibility

Amvic ICFs have superior engineered spanning capabilities, making them ideal for long insulated window and door lintels, as well as for grade beam applications.

Curved, square, plumb and straight walls are easily achievable with the use of Amvic ICFs.

Exterior and interior wall coverings are easily attached to Amvic ICF webs, dramatically improving a structure's appearance.

A variety of difference openings from simple to intricate architectural designs, including tall gable ends are all easily achieved with Amvic ICF.

Green Building

With an Amvic ICF structure, energy consumption is reduced on average by approximately 30-50% monthly, which translates to an equivalent reduction in harmful emissions.

Amvic ICF structures eliminate the use of wood for exterior walls, thus helping to reduce deforestation.

Construction waste generated with an Amvic ICF structure is less than 1% on average compared to up to 6% with competing ICFs and significantly more with conventional construction.

Amvic ICF webs are manufactured using recycled polypropylene, which means that over 60% of the weight of an Amvic ICF is comprised of recycled materials.

Amvic manufacturing centers use steam and cold water to produce ICF forms and no harmful CFCs, HCFCs or formaldehyde are used in the manufacturing process.

Our ICF Products

	Product	Concrete Core Width	Form Dimension inches LxHxW (Metres)	Concrete Volume Per Form	Concrete Volume per sq.ft of wall area	Surface Area Per Form
	Amvic Straight Reversible Block	4″ (100mm)	48″x16″x9″ (1.2 x0.4 x0.22)	0.066 cu-yd 0.05 m^3	0.012 cu-yd 0.009 m^3	5.33 ft^2 0.5 m^2
		6″ (152mm)	48″x16″x11″ (1.2 x 0.4 x 0.28)	0.099 cu-yd 0.076 m^3	0.019 cu-yd 0.014 m^3	5.33 ft^2 0.5m^2
		8″ (203mm)	48″x16″x13″ (1.2 x 0.4 x 0.33)	0.132 cu-yd 0.101 m^3	0.025 cu-yd 0.019 m^3	5.33 ft^2 0.5 m^2
		10″ (254mm)	48″x24″x15″ (1.2 x 0.61 x 0.38)	0.247 cu-yd 0.189 m^3	0.031 cu-yd 0.024 m^3	8 ft^2 0.74 m^2
	Amvic 90º Corner Reversible Block*	4″ (100mm)	[24.5″ + 12.5″] x 16″ x 9″ (0.62 + 0.32) x 0.4 x 0.22	0.037 cu-yd 0.028 m^3	0.009 cu-yd 0.007 m^3	4.11 ft^2 0.38 m^2
		6″ (152mm)	[26.5″ + 14.5″] x 16″ x 11″ (0.67 + 0.37) x 0.4 x 0.28	0.059 cu-yd 0.045 m^3	0.013 cu-yd 0.01 m^3	4.56 ft^2 0.42 m^2
		8″ (203mm)	[28.5″ + 16.5″] x 16 ″x 13″ (0.72 + 0.42) x 0.4 x 0.33	0.083 cu-yd 0.064 m^3	0.017 cu-yd 0.013 m^3	5.00 ft^2 0.46 m^2
		10″ (254mm)	[42.5″+ 18.5″] x 24″ x 15″ (1.08 + 0.47) x 0.61 x 0.38	0.225 cu-yd 0.172 m^3	0.022 cu-yd 0.017 m^3	10.17 ft^2 0.94 m^2
	Amvic 45º Corner Reversible Block*	4″ (100mm)	[21″+ 9″] x 16″ x 9″ (0.53 + 0.23) x 0.4 x 0.22	0.036 cu-yd 0.028 m^3	0.009 cu-yd 0.008 m^3	3.33 ft^2 0.31 m^2
		6″ (152mm)	[21.25″+ 9.25″] x 16″ x 11″ (0.54 + 0.23) x 0.4 x 0.28	0.05 cu-yd 0.038 m^3	0.015 cu-yd 0.011 m^3	3.38 ft^2 0.31 m^2
		8″ (203mm)	[22″+10″] x 16″ x 13″ (0.56 + 0.25) x 0.4 x 0.33	0.068 cu-yd 0.052 m^3	0.019 cu-yd 0.015 m^3	3.56 ft^2 0.33 m^2
	Amvic Tapered Top Block	6″ (152mm)	48″x16″x11″– 9.5″ concrete width at top (1.2 x 0.4 x 0.28 – 0.24 concrete width at top)	0.108 cu-yd 0.083 m^3	0.02 cu-yd 0.016 m^3	5.33 ft^2 0.5 m^2
		8″ (203mm)	48″x16″x13″ – 11.5″ concrete width at top (1.2 x 0.4 x 0.33 – 0.29 concrete width at top)	0.141 cu-yd 0.108 m^3	0.026 cu-yd 0.02 m^3	5.33 ft^2 0.5 m^2
	Amvic Brickledge Block	6" (152mm)	48″x16″ & 5″ Brick Ledge space	0.134 cu-yd 0.102 m^3	0.025 cu-yd 0.019 m^3	5.33 ft^2 0.5 m^2
		8" (203mm)	48″x16″ & 5″ Brick Ledge space	0.167 cu-yd 0.128 m^3	0.031 cu-yd 0.024 m^3	5.33 ft^2 0.5 m^2
		8″ to 6″ transition	48″x16″ & 4.5 Brick Ledge space	0.157 cu-yd 0.12 m^3	0.029 cu-yd 0.023 m^3	5.33 ft^2 0.5 m^2
	Amvic Height Adjuster	2" (50mm)	48"x2"x2.5" (1.2 x 0.05 x 0.06)	N/A	N/A	N/A
		3" (76mm)	48" x 3" x 2.5" (1.2 x 0.076 x 0.06)	N/A	N/A	N/A
		4" (100mm)	48"x4"x2.5" (1.2 x 0.1 x 0.06)	N/A	N/A	N/A

ICF Corner Reinforcement

In early 2005, Amvic launched a new patent pending reinforcement technology for ICF corner forms which further increases the strength of an Amvic ICF structure. In the 90 degree corner forms, a reinforcing polypropylene rod has been inserted within the EPS to prevent block separation during the concrete pour.

* All dimensions taken are based on the outer perimeter of form.

Accessories

Simpson Strong-Tie® ICF Ledger Connection

The *Simpson Strong-Tie® Insulated Concrete Form Ledger Connection (ICFLC)* is engineered to solve the challenges of mounting steel or wood ledgers on ICF walls. The perforations in the embedded leg of the *ICFLC* permit the concrete to flow around it anchoring the *ICFLC* securely within the concrete. The exposed flange provides a structural surface for mounting either a wood or a steel ledger. The *ICFLC* is quick, easy and versatile to use.

Windlock™ Foam2Foam™ Foam, Foam Gun Cleaner and Foam Gun

Windlock™ Foam2Foam™ is a multi purpose, professional, low expansion construction adhesive and gap and crack filler. This professional quality, quick curing foam is ideal for use on an Amvic ICF jobsite due to its versatility and multi-purpose functionality. Various functions include adhering ICF blocks to footers, keeping pipes secure and pests out, reducing the need for drywall screws and reducing air infiltration around cut outs.

Waterproof Membrane

Armtec Ltd. Platon Foundation Protector

Platon is a uniquely dimpled, 24-mil waterproof high-density polyethylene membrane, proven to solve basement leakage problems by providing exterior water control, moisture vapor control and drainage. *Platon* eliminates moisture from both the inside and outside of the wall. The membrane's dimples rest on the foundation wall and create a waterproof barrier that holds wet soil away from the wall. Basement moisture condenses on the inside of the membrane and flows to the footing or drain for removal.

Soprema® Colphene ICF

Colphene ICF is a high quality self-adhesive waterproofing membrane designed for the waterproofing of ICF foundations. It is comprised of SBS modified bitumen and a polyethylene woven complex facer for superior flexibility and strength.

Additional items are also available to suit your building needs.

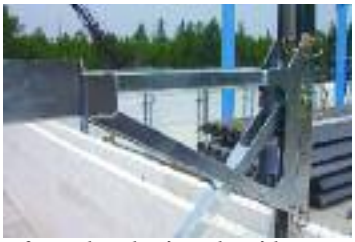
Bracing

Original Brace

The Plumwall Original Brace comes in a standard 10' length, is lightweight (only 54 lbs) and folds up for transport and storage.
It is adjustable from the ground or platform position. All components are bolted or pinned in place with the telescopic diagonal brace adjustable in 3" increments. 8', 9' and 12' braces are also available by special order.

Econo Brace

This new edition to the Plumwall product line is a 3-part bracing system that comes in a standard 10' length. Strongback, platform and diagonal strut are assembled on location and pinned in place. Components are galvanized and/or plated for corrosion resistance. The Diagonal Brace has also been designed to be adjustable from ground and platform level. 8' and 12' braces are also available by special order.



Knee Wall Brace

The Knee Wall Brace was specially designed for 4' foundation wall applications. This rigid brace, designed in the same Plumwall style as the Original and Econo Brace systems, is comprised of a 4' upright and an adjustable strut.

Corner Angle Braces

Inside and outside corners can now be fully supported with the addition of an Inside or Outside Corner Brace to the Plumwall product line. These products are supported or "Backed-Up" by either the Original or Econo Brace.

Commercial Brace

In 2005, Plumwall introduced a newly engineered bracing system designed to brace ICF walls up to 24' in height. The Commercial System is made of two components, ladders and braces, which are combined and stackable to give support to 8', 16' and 24' walls. This system is fully adjustable with platforms that can be installed in 12" increments. This system is not compatible with the Original or Econo Bracing Systems.

Support

Training

Amvic offers a unique training program which covers the basics of ICF construction from footing to rafter including floor and roof connections, consolidation, proper rebar placement and much more! Classroom presentations and discussions as well as hands on wall building make this an exciting event. For more information please contact Head Office toll free at 1 877 470 9991 or e-mail us at gbrown@amvicsystem.com.

Technical support

Amvic has the most qualified staff in the ICF industry and can provide you with the highest level of professional technical support.

Technical Testing

The following is a list of technical tests completed on Amvic ICFs to date:

1. Compressive Strength of EPS (ASTM D 1621-94)
2. Flexural Strength of EPS (ASTM C203-99)
3. Water Vapor Transmission (ASTM E96-94)
4. Water Absorption Determination (ASTM D2842-97)
5. Limiting Oxygen Index (ASTM D2863-97)
6. Thermal Resistance of EPS (ASTM C 177-97)
7. Trueness and Squareness (ASTM C550-95)
8. Mechanical and Physical Properties of Plastic Ties (Fasteners-ASTM D1761, Tensile Strength-ASTM D638-99)
9. Forming Capacity Test (CCMC Technical Guide for Modular Expanded-Polystyrene Concrete Forms)
10. Room Fire Test for Interior of Foam Plastic Systems (UBC 26-3)
11. Fire Performance Evaluation of Wall (ASTM E119-98)
12. Fire burning properties of polypropylene Reinforcing webs:
    - Ignition Temperature ASTM D1929-68 / UBC 26-6
    - Burn Rate ASTM D 635-98
    - Smoke Density ASTM D 2843-93/UBC 26-5
13. Physical Properties of Polypropylene Webs at a Temperature of -20*F (ASTM D638-01)
14. Standard Test Methods for Fire Tests of Building Construction and Materials: CAN/ULC S101-M89 and ASTM E119.

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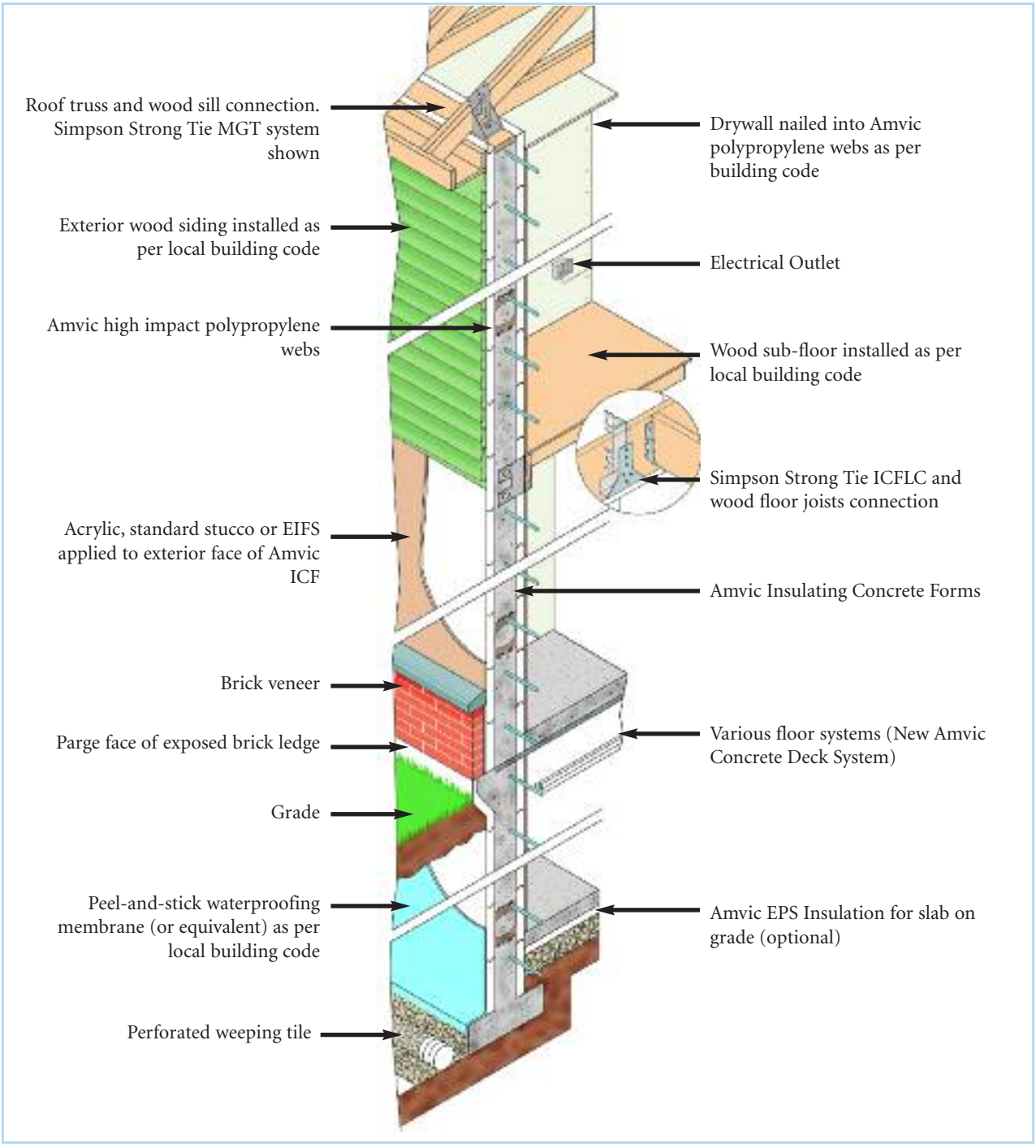

The International Code Council (ICC) ESR-1269.
Note: BOCA, ICBO, and SBCCI now formally consolidated into a single organization.

CCMC

Canadian Construction Materials Centre (CCMC)
CCMC#13043-R

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