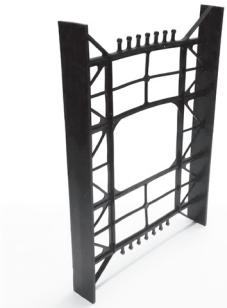
Experience the Advantage ICF System®

Plasti·Fab® EPS PRODUCT SOLUTIONS
Better building ideas from PFB™

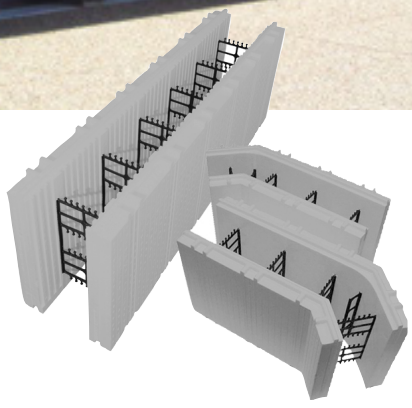
Ideal for new construction or renovation providing:



Insulating concrete form (ICF) for concrete walls
- Stay-in place insulation for energy efficiency
- Internal webs with 1 ½" wide attachment surfaces for interior and exterior finishes
- Air and vapour barrier requirements for wall area
- RSI/R-value of molded expanded polystyrene (EPS) insulation used for stay-in place panels does not change with time

Use the Advantage ICF System to construct walls below and above grade. Providing superior effective thermal resistance (RSI/R-value) and reduced air leakage on all types of residential, commercial and institutional projects.

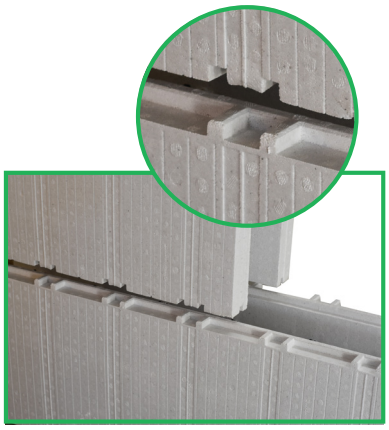
The Advantage ICF System provides an insulated concrete wall assembly creating a safe, quiet and comfortable living environment:



- Monolithic concrete wall reduces sound transmission
- Reinforced concrete wall resists damage from the most severe weather
- Superior thermal resistance reduces energy used for heating and cooling, saving you money while helping the environment

www.AdvantageICF.com **1-888-446-5377** **1-88-THINK EPS®**

1. Patented Interlock Design



The Advantage ICF Systems patented tongue and groove interlock design on the horizontal joints allows tight nesting of the blocks. The groove on the bottom edge of EPS panels interlocks with the tongue on the top edge of EPS panels making it easier to apply a consistent even bead of foam adhesive in critical areas to interlock the blocks tightly. This eliminates the need for internal metal hooks that interrupt concrete flow during placement or interfere with internal mechanical vibration essential for proper concrete consolidation as recommended by the Portland Cement Association to avoid voids in ICF walls (see PCA Bulletin RD134 "Concrete Consolidation and Potential for Voids in ICF Wall").

The Advantage ICF System tongue and groove interlock design provides an additional barrier for moisture migration through the horizontal seams.

2. Tabs to keep attachment surfaces aligned

Advantage ICF System is the only ICF product that features tabs within the horizontal interlock design. Advantage ICF block internal webs tie the monolithic EPS insulation panels in place and provide 1 ½" wide attachment surfaces for your interior and exterior finishes. Tabs incorporated into the tongue on the top edge of the EPS panels slip into grooves on the bottom edge of the row above to keep the webs aligned making attachment of finishes easier and faster.

There are some areas where the tabs may have to be removed due to project specific installation issues. This is done with little effort with the horizontal tongue and groove interlock between blocks maintained. This interlock feature means less waste than reversible ICF Blocks.

3. Easy to find Markings

An embossed line on the exterior surface of EPS pan¬els marks the middle of the 1 ½" wide vertical attachment surfaces on internal webs making it easy to find the surfaces for fastening interior and exterior finishes. All Advantage ICF System blocks are also marked with a vertical recessed cut line every inch to facilitate cutting blocks to length when required.

4. Brick Ledge Block

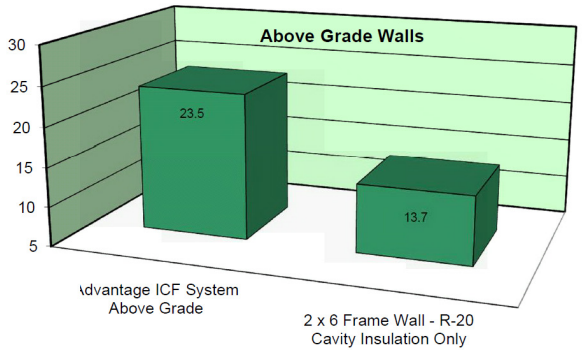
The Advantage ICF System Brick Ledge Block features a continuous uninterrupted concrete ledge. When brick ledge blocks are included in any ICF system horizontal steel reinforcement and stirrups are required in the concrete ledge portion to support loads. The Advantage ICF Brick Ledge Block features a web unique to the ICF industry that is molded into the EPS panel that forms the brick ledge. Attachment surfaces on internal webs within the EPS panel are consistent to the top of the ledge for easier fastening of required exterior finish materials to, a benefit only provided by the Advantage ICF Brick Ledge Block.

This superior design of the Advantage ICF Brick Ledge Block allows it to be used to provide uniform support for cladding such as brick or stone and can also be used for support of interior or exterior concrete slabs. All concrete reinforcement is totally encapsulated within the concrete so it is not exposed to moisture which can lead to long term deterioration through corrosion. This is a significant improvement over other ICF designs that use EPS haunches molded into one face of the EPS panel. These haunches are considered structural voids and do not allow the steel reinforcement to be protected from moisture.

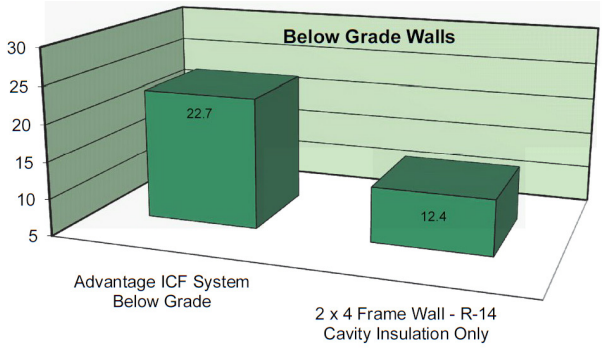
Effective Thermal Resistance

A poorly insulated wall above or below grade can account for more than 50% greater energy use to heat or cool a building. The graphs provided illustrate comparison of the effective thermal resistance provided by walls constructed with the Advantage ICF System wall versus walls constructed with wood frame wall and cavity insulation.

Effective Thermal Resistance Comparisons



Effective Thermal Resistance Comparisons



Advantage ICF System wall assemblies do not use wood framing so the interior and exterior insulation layer is continuous versus wood frame assemblies which are constructed with studs at 406 mm (16") to 610 mm (24") on center. Energy efficiency requirements in the National Building Code of Canada 2010 (NBC 2010) are based upon minimum **effective thermal resistance (RSI_{eff}/R_{eff})** of building assemblies which includes the effect of thermal bridging due to repetitive structural members such as wood framing members in wall or roof assemblies calculated using the formula below.

$$RSI_{eff}(R_{eff}) = \frac{100\%}{\frac{\%\text{ with Framing}}{RSI_F(R_F)} + \frac{\%\text{ Area Cavity}}{RSI_C(R_C)}} + \text{RSI (R)Continuous Material Layers}$$

Walls built with the Advantage ICF System with a typical RSIeff (Reff) = 4.14 (23.5) for above grade walls and RSIeff (Reff) = 4.00 (22.7) for below grade foundation walls exceed NBC 2010 minimum RSI_{eff} (R_{eff}) requirements in the table below for all climate zones.

NBC 2010 Climate Zones	Zone 4	Zone 5	Zone 6	Zone 7a	Zone 7b	Zone 8
Heating Degree-Days (HDD) Celsius Degree-Days	<3,000	3,000 to 3,999	4,000 to 4,999	5,000 to 5,999	6,000 to 6,999	≥ 7,000
Above-Grade Walls						
Table 9.36.2.6.A - Buildings Where a Heat Recovery Ventilator (HRV) is not Installed						
RSI_{eff} (R_{eff})	2.78 (15.8)	3.08 (17.5)	3.08 (17.5)	3.08 (17.5)	3.85 (21.9)	3.85 (21.9)
Table 9.36.2.6.B - Buildings Where a Heat Recovery Ventilator (HRV) is Installed						
RSI_{eff} (R_{eff})	2.78 (15.8)	2.97 (16.9)	2.97 (16.9)	2.97 (16.9)	3.08 (17.5)	3.08 (17.5)
Below-Grade Foundations						
Table 9.36.2.8.B - Buildings Where a Heat Recovery Ventilator (HRV) is not Installed						
RSI_{eff} (R_{eff})	1.99 (11.3)	2.98 (16.9)	2.98 (16.9)	3.46 (20.0)	3.46 (20.0)	3.97 (22.5)
Table 9.36.2.8.B - Buildings Where a Heat Recovery Ventilator (HRV) is Installed						
RSI_{eff} (R_{eff})	1.99 (11.3)	1.99 (11.3)	2.98 (16.9)	2.98 (16.9)	2.98 (16.9)	2.98 (16.9)

Advantage ICF System Specifications

EPS Insulation:	Complies with CAN/ULC-S701, Type 2 and ASTM C578, Type II
Concrete:	Nominal thickness 152-mm (6") or 203-mm (8")
Sound Transmission:	STC Rating >50
Fire Resistant Rating:	Minimum 3-hour rating for 152-mm (6")
Air & Vapour Barrier:	Provided by combination of monolithic concrete thickness and EPS insulation
Code Evaluation Reports:	CCMC 13101-R (Canada) Intertek CCRR-1006 (USA)
Sustainability Certification:	GREENGUARD Gold

Product Information Bulletins

Advantage ICF System Product Information Bulletins (PIBs) with additional information specific to the Advantage ICF System are available at www.advantageicf.com. PIBs address a wide range of subjects relating to ICF construction and are frequently updated as new information becomes available. The table below provides examples of typical PIB subjects.

Product Information Bulletin Subject	Applicable PIBs
CCMC Evaluation Report 13101-R	201, 202
Intertek Research report CCRR-1006 Advantage ICF System	220
NBC 2010 Dampproofing and Waterproofing Requirements	205
Prescriptive Requirements for ICF Construction	207, 208
Code requirements for Air Barrier & Vapour Barrier Systems	209
NBC 2010 Insulating Sheathing in Lieu of Sheathing Membrane	210
NBC 2010 Party Wall Requirements	211, 221
GREENGUARD Gold Listing	213
Energy Efficiency Requirements	214, 215, 219, & 222