



INSULATED CONCRETE FORMS (ICF)
ARCHITECTS | DESIGNERS | ENGINEERS

SuperForm™

Building a better future.



RAIC | IRAC
Royal Architectural Institute of Canada
Institut royal d'architecture du Canada



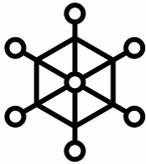
CADdetails
CAD Drawings | 3D Models

Benefits of ICF



Fire Resistant

SuperForm ICF withstood exposure to intense flame without structural failure in firewall tests. Extremely low flame spread and smoke development result in a **fire protection rating of up to 4 hours. ASTM E119**. Conventional wood walls have a fire rating of under 20 minutes.



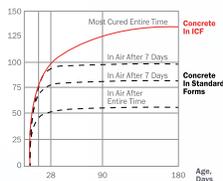
Rot/Mold Free

SuperForm is 100% rot and mold/mildew free with absolutely no food source available for anything to grow.



Net Zero Green Construction

Ongoing laboratory and site testing proves a home or commercial building built with SuperForm ICF can meet net zero requirements. SuperForm ICF achieves a **thermal transmittance of 0.260 m²K/W (0.046 ft²·hr·°F/BTU) and thermal resistance of 3.70 W/m²K (21.0 BTU/ft²·hr·°F)**. SuperForm ICF's superior energy performance results from our wall system working in conjunction with the thermal mass of a solid concrete core to provide one of the strongest, most energy-efficient, and airtight wall systems available today. **Effective R-value performance of over R40.**



Disaster Resilience

The strength of SuperForm ICF is derived from a solid concrete core. In our forms, concrete is cured in a perfect environment, making it 30% stronger than conventional concrete walls. Combining our 12" high block, which gives engineers and builders more rebar options, creates one of today's strongest walls. SuperForm provides high impact resistance and **withstands up to 400km/h (250 mph) winds**, ensuring safety within a building.

Energy Efficiency

The building industry demands tighter, more energy-efficient buildings with effective R values of 40 and above. SuperForm ICF offers better energy solutions for any structure. Studies show that SuperForm ICF has a 58% better R-value than conventional wall systems, resulting in energy savings of up to 60% per year. This is achieved by the concrete's thermal mass, superior air tightness, and continuous insulation on both sides of the wall assembly, reducing the size of heating and air conditioning equipment.



Project Profile | **Kanas Lumino** CALGARY, AB

ICF Builder Awards 2022 - Top 3 Finalist

- ▶ The Orion at Lumino Park received the '2nd Runner Up' Award in the Multifamily category

Project Statistics

- ▶ **Type:** Multifamily affordable housing
- ▶ **Size:** 110,000 sq. ft.
- ▶ **ICF Use:** 50,000 sq. ft.
- ▶ **Cost:** \$37,000,000
- ▶ **Total Construction:** 64 weeks
- ▶ **ICF Installation Time:** 5 days per floor, 18 floors

Construction Team

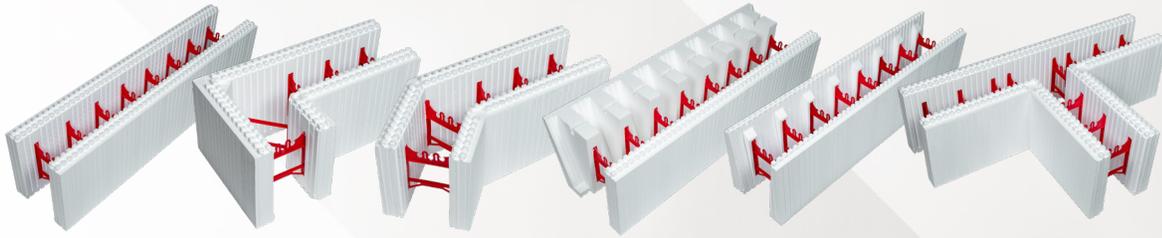
- ▶ **Owner/Developer:** Kanas Corp.
- ▶ **General Contractor:** Kanas Corp.
- ▶ **ICF Installer:** Kanas Corp.
- ▶ **Architects:** Casola Koppe Architects
- ▶ **Engineer:** Eco Engineering
- ▶ **ICF System:** SuperForm

Fast Facts

- ▶ 18-story highrise with 135 residential units
- ▶ Co-generation and photovoltaic solar arrays
- ▶ Project received BUILT GREEN® platinum standard rating
- ▶ Uses 1/5th the energy of a traditional highrise
- ▶ Multilevel parkade



Why SuperForm ICF?



▶ **12" Tall Block**

Due to the size of our block, our tie size is only 1' high. With more tie hold and less square footage, our block is stronger than competing blocks (16-18" tall) and avoids vertical and horizontal bulging. This design gives engineers more options, giving you the option of a 12" rebar grid, and makes for a stronger, flatter wall.

▶ **6" Tie Spacing**

Our 6" tie spacing provides up to 33% more tie per block. This spacing means that each tie needs to hold just 0.5 square foot, making for the strongest block on the market. 4" of foam between ties and 2" on the end of the block eliminates vertical and horizontal bulging along block planes and provides a flatter, straighter, stronger wall. The 6" tie spacing also allows for more attachment points in your wall, giving you more options. Combined with our 12" tall block, 6" tie spacing gives builders the strongest block possible.

▶ **1" Repeating Cut Lines**

We designed SuperForm ICF's with maximum design flexibility in mind. This flexibility allows a builder to match any plan you provide on the job site.

▶ **Thickest Tie Flange**

With the thickest flange (6.75mm- 17/64") on the market, our tie performs when fastening anything to it. The result is a strength that holds up to 330 lbs. off a one 2-inch deck screw and pullout strength that exceeds wood studs. Our product eliminates the worry over stripped screws, making it the go-to product for builders. Our fastener withdrawal tests show up to double the strength of our competitors' ties.

▶ **Virgin Tie Material**

Our ties consist of virgin material, which gives a more consistent and higher tie strength. This eliminates brittle ties and results in a stronger, safer wall, giving you peace of mind knowing it will handle the pressure of concrete. Our tensile tests exceed strengths of over 850 lbs.

Why Does This All Matter to You?

▶ **Peace of Mind**

The unmatched strength of SuperForm ICF provides the installer peace of mind during installation and concrete pour. While other systems require zip ties, wire ties, glue/spray foam, form lock, kickers, or even applying plywood to every corner, SuperForm simplifies installation without using extras. Our knob system, virgin tie material and tie spacing add to this ease of installation, saving significant time, effort, and money. Simply put, minimal accessories required equals less labour and faster installation for builders. You'll have confidence knowing you're spec'ing the highest-quality ICF product available.

Project Profile | SuperForm Facility

PINCHER CREEK, AB

Project Statistics

- ▶ **Type:** Manufacturing
- ▶ **Size:** 63,500 sq. ft.
- ▶ **Height:** 31' side walls
- ▶ **ICF Use:** 31,000 sq. ft.
- ▶ **ICF Installation Time:** 5 weeks

Construction Team

- ▶ **Owner/Developer:** SuperForm Products Ltd.
- ▶ **General Contractor:** Link Builders
- ▶ **ICF Installer:** SuperForm Products Ltd.
- ▶ **Architects:** Alvin Reinhard Fritz Architect Inc.
- ▶ **Engineer:** BCB Engineering Ltd.
- ▶ **ICF System:** SuperForm ICF

Fast Facts

- ▶ Install was completed in-house due to the simplicity of installing SuperForm ICF
- ▶ Project came in under budget by building with ICF over other wall systems
- ▶ 31' clear-span side walls
- ▶ Built with 8" ICF
- ▶ MST-BAR, a Glass Fiber Reinforced Polymer (GFRP) Rebar was used



SuperForm Technical Resources

ICFMA Thermal Study

Learn more about how 60% more energy is used with a 2"x 6" wood frame wall system vs an ICF wall system in this thermal study prepared by CLEB Laboratories Inc. for the Insulating Concrete Forms Manufacturers Association (ICFMA).

[Click here to access ICFMA Thermal Study](#)

ICFMA Design Guide for Multi-Storey Buildings

[Click here to access the ICFMA Design Guide for Multi-Storey Buildings](#)

QAI Test Listing ICF

[Click here to access the QAI Test Listing ICF document](#)

USA Code Evaluation Report

[Click here to access the USA Code Evaluation Report](#)

ICFMA Canadian Prescriptive Engineering Manual

[Click here to access the ICFMA Canadian Prescriptive Engineering Manual](#)

CADdetails.com

Access SuperForm's CAD Drawings, BIM, and 3D models on our microsite with CADdetails.com.

Click here to visit our CADdetails Microsite

AEC Daily ICF Course

This course explores insulating concrete forms (ICFs) as part of a sustainable construction system by covering their benefits, applications, and design considerations. The course delves into the structural properties, energy efficiency, and environmental impact of ICFs. Also presented are best practices for integrating ICFs into various architectural projects and a concise overview of installation steps.

Click here to visit our AEC Daily ICF Course



SuperForm Technical Support

SuperForm offers technical support to Architects, Designers, and Engineers to help ensure SuperForm ICF projects run smoothly. Not only does SuperForm understand what builders need to succeed on the job site, but we provide the support required to ensure SuperForm ICF is available to spec.

Contact our technical support team if you require the following services:

- ▶ Technical Advice
- ▶ Specification Support

If you have questions, reach out to our technical support team.

- ▶ 877.627.3555 | Ext 5
- ▶ technical@superformicf.com



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