



## Building Has Evolved



home owner



When choosing NUDURA Insulated Concrete Forms to build your next home you can ensure that you are using the best building solution available today. Building with NUDURA allows you the freedom and versatility to design and build your home the way you want, without limitations. Our Insulated Concrete Forms provide substantial benefits over traditional building methods so that your family can enjoy greater comfort, safety, and energy efficiency in a healthier, more durable home.

NUDURA leads the industry in product innovation and is unmatched by any other Insulated Concrete Form. NUDURA is strongly committed to improving the building process to support environmental issues, reduce energy consumption, and to save our valuable environmental resources for future generations.



# innovation makes us the **better** building choice.

## the principle is simple.



NUDURA Insulated Concrete Forms are stay-in-place forms that offer you a variety of superior benefits when building your new home. NUDURA Forms consist of two panels of Expanded Polystyrene (EPS) foam that are 2 5/8" (67 mm) in thickness and connected together with our patented web system that is made of 100% recycled material. NUDURA Forms are stacked, then steel reinforced and filled with concrete, which completes the building envelope of your home in one building step. NUDURA Forms are available in a variety of shapes and sizes to accommodate all types of building requirements and designs.

## eco-friendly building.



With rising fuel costs and energy requirements we need to make the most of building technology so we can better heat and cool our homes. NUDURA Insulated Concrete Forms give you maximum comfort and energy solutions for your entire home providing Performance Values up to 50% when compared to traditional wood building methods. The superior Performance Value of NUDURA comes from the stable thermal mass that the concrete provides. NUDURA offers form sizes that provide a solid concrete core of up to 12" (304 mm), providing you maximum energy efficiency, strength and comfort.

*"We sourced out many building alternatives when we started looking into building our new home. When we came across NUDURA we knew we had found the right product. Energy efficiency, comfort and safety were the biggest attributes that we looked for and we have not been disappointed.*

*Our distributor was very helpful in explaining the product and the things we had to think about while building, and the service was excellent. We definitely made the right choice."*

*- Linda Perry, NUDURA Home Owner*

## what you can expect from NUDURA.



NUDURA has an extensive Authorized Distributor network worldwide that can provide you with assistance from concept to completion of installation with a NUDURA Trained Installer. Consult with your local distributor for contractors or builders that have taken the NUDURA Basic Installation Training Course. NUDURA prides itself on providing you the best support from strong, reputable businesses within your local geographic areas to represent our products. **To find an Authorized NUDURA Distributor in your area visit [nudura.com](http://nudura.com).**

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Architect: Nathalie Tremblay

NUDURA forms are manufactured with industry leading patented technologies that are exclusive to NUDURA, offering you more than just a home. Our full line of products are designed to complement each other to make your home eco-friendly and to provide superior energy efficiency, greater comfort and safety. Our building envelope provides an affordable eco-friendly building solution that offers substantial benefits over traditional construction.

## Innovation makes us the smarter building choice.



- **DURALOK Technology**® - Securely locks forms into place with a triple tooth interlock eliminating the need to wire or glue forms, resulting in reduced labor costs during installation. Once the forms are stacked together a continuous full height-fastening strip ensures wall heights are always accurate, compared to other forms without full height-fastening which can cause wall height shrinkage once concrete is placed. DURALOK makes NUDURA the strongest in the industry.



- **DURAFOLD Technology**® - Patented hinged web technology allows the entire NUDURA form line up to fold and ship flat, allowing for 40% more product on a truck compared to other Insulated Concrete Form products. Once on-site, contractors simply unfold and stack.



- **DURAMAX Technology**® - Largest standard form on the market measuring 96" x 18" (2438 x 457 mm). Our 96" form creates 60% fewer joints in the wall compared to other wall systems and allows installers the ability to place 12 sq.ft. (1.11 m<sup>2</sup>) of wall area with one block.



- **4-WAY REVERSIBLE System** - Reduces waste, allowing your builder to minimize the amount of waste sent to our landfills after construction is complete. Resulting in a more environmentally friendly building product compared to traditional construction.

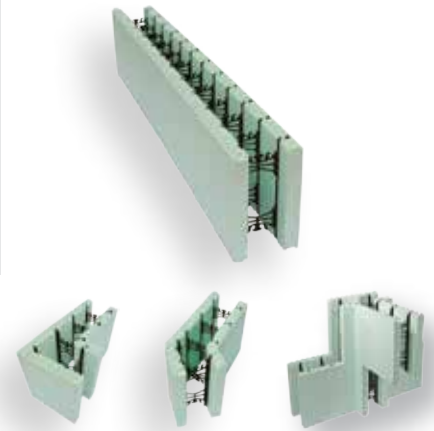
# innovation makes the difference.

## nudura<sup>icf</sup> series

The NUDURA Wall System completes six building steps with one product:

- |                   |   |
|-------------------|---|
| 1. Form system    | 4. Air barrier                          |
| 2. Wall structure | 5. Vapour control barrier               |
| 3. Insulation     | 6. Interior & exterior finish anchorage |

NUDURA offers a form line up that includes 90°, 45°, T Forms, Radius Forms, Straight (standard) Forms, Brick Ledge along with a variety of other form combinations to meet the requirements of any design. To meet any building requirement NUDURA Forms are offered in 4" (100 mm), 6" (150 mm), 8" (200 mm), 10" (250 mm) and 12" (300 mm) concrete core widths.



## integrated<sup>icf</sup> series

The Integrated series from NUDURA combines building envelope products that work in conjunction with our line of Insulated Concrete Forms to provide maximum energy efficiency. The Integrated Series offers, RetroFit Insulation Technology (a 4' x 8', 1.2m X 2.4m sheet that installs inside and out), Floor and Ceiling Technology (insulation for floors and ceilings), HYDROFOAM® (a radiant heat insulation base), NOVOFOIL® (a vapour-barrier insulation board) and AIRCLAD® (an air-barrier insulation board). Each Integrated Series product has been manufactured to install quickly and efficiently and replaces many traditional forms of insulation.



## one<sup>icf</sup> series

RetroFit Ceiling & Floor Technology HYDROFOAM® NOVOFOIL® AIRCLAD®

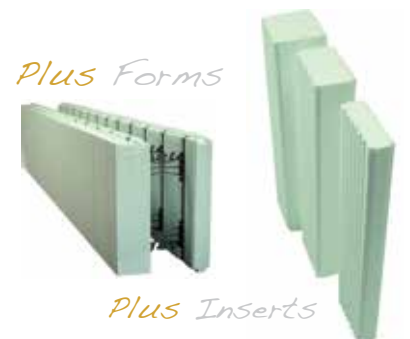
The industry's first multi-link form system that enables the creation of a fully exposed concrete surface that extends to the face of a standard NUDURA form panel. This offers builders and architects unmatched versatility for projects designed to use ICFs. At the core of this innovative line is our DURA MULTI-LINK™, a newly designed web that enables the builder to create custom multi-sided form combinations for a variety residential and pool building projects.



## plus<sup>icf</sup> series

The Plus Series product line introduces an innovative way for designers and engineers to build their own R-value. The Plus Form and the R-Value insert offers the ability to optimize R-Value with thermal mass to provide significant energy savings for building owners.

Plus Forms	Plus Inserts
1" (25 mm)	2" (50 mm)
2" (50 mm)	4" (100 mm)
4" (100 mm)	6" (150 mm)
6" (150 mm)	



6" (150 mm) concrete core R-Value ratings based on exterior brick finish.

# building value into your home.



## maximum energy efficiency.

NUDURA homes have been proven to reduce home operational energy demands by as much as 50% over standard frame construction methods, and as a result, reducing the carbon footprint on the environment. A NUDURA home's superior energy performance is the result of NUDURA forms working in conjunction with the thermal mass of a solid concrete core to provide one of the most energy efficient and airtight wall systems available today.

## greater home comfort & sound resistance.

NUDURA offers superior performance when it comes to thermal bridging, resulting in even temperatures throughout your home with reduced drafts and cold spots, ensuring you are comfortable no matter what the temperature is outside. NUDURA also acts as an effective sound barrier by dampening sound vibrations from unwanted outside noise, such as traffic, trains, and neighbors providing STC (Sound Transmission Class) ratings as high as STC 50\*.

## safety for your family.

The strength of NUDURA comes from the solid concrete core. NUDURA walls are built with steel reinforced concrete and a non-toxic fire retardant Expanded Polystyrene foam, providing a fire protection rating of up to 4 hours (4 times that of a typical wood frame home). NUDURA also provides greater impact resistance and will withstand winds of up to 250 mph (402 kph) ensuring that your family and home are safe and secure in almost any situation.

## long-term value.

A NUDURA home is built to last and retains its value longer. The main structural element in a NUDURA home is reinforced concrete, which offers greater durability and requires less maintenance and repair over its lifetime compared to wood structures.

\*STC 50 rating based on minimum 6" (152 mm) NUDURA form and concrete core thickness or larger installed with code compliant finishes mounted both side of wall assembly in accordance with NUDURA Installation procedures.



	NUDURA Wall System	Traditional Wood Frame
<b>Energy Efficiency</b>	<ul style="list-style-type: none"> <li>No thermal bridging</li> <li>Energy savings up to 50%</li> <li>Thermal concrete mass</li> </ul>	<ul style="list-style-type: none"> <li>Thermal bridging</li> <li>Provides lower efficiency in energy performance ***</li> <li>Hollow cavity (Batt insulation)</li> </ul>
<b>The Environment</b>	<ul style="list-style-type: none"> <li>Reduces greenhouse gases</li> <li>Saves environmental resources</li> <li>Lifetime value</li> </ul>	<ul style="list-style-type: none"> <li>Minimal greenhouse gas reduction</li> <li>Uses environmental resources</li> </ul>
<b>Safety &amp; Strength</b>	<ul style="list-style-type: none"> <li>Withstand winds up to 250 mph &amp; 115 mph debris impact</li> <li>4 hour fire protection</li> <li>Solid concrete core</li> </ul>	<ul style="list-style-type: none"> <li>Minimal or no resistance to wind born debris damage</li> <li>Cavity walls invite insects &amp; rodents</li> <li>45 minute fire rating only</li> <li>Batt insulation/wood subject to sagging, dry rot, moisture</li> </ul>
<b>Living Space</b>	<ul style="list-style-type: none"> <li>NUDURA forms are non-toxic &amp; do not emit CFC's or HCFC's</li> <li>Does not support mold growth</li> <li>STC Rating varies from 50-55** depending on core thickness</li> </ul>	<ul style="list-style-type: none"> <li>Manufactured wood products can contain adhesives and formaldehyde</li> <li>Wood walls can retain moisture; allowing mold to grow</li> <li>Sound easily travels through wood walls (typically STC 33****)</li> </ul>

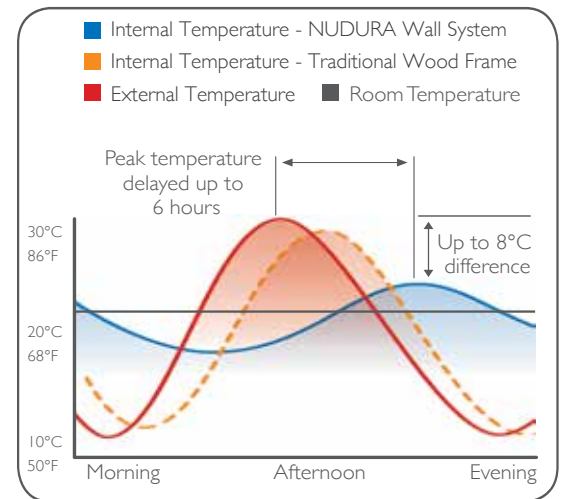
\* Based on actual In-field comparisons of ICF versus traditional frame constructed buildings of similar size.  
 \*\* NUDURA STC Rating based on 6" (152 mm) core wall and above.  
 \*\*\* Based on wood frame buildings constructed to meet minimum national or state building code requirements.  
 \*\*\*\* Frame wall STC Rating based on standard code constructed frame wall for both US and Canada.

## thermal mass.

NUDURA Performance Values meet and exceed 2012 Building Codes.

The solid mass of the NUDURA wall has some very unique qualities. The monolithic concrete is layered between two continuous panels of 2 3/8" (67mm) EPS foam, which isolates the concrete and reduces the flow of heat through the wall.

Since NUDURA walls have a high storage capacity with low thermal conductivity, it provides the most useful level of Thermal Mass. This helps to stabilize the internal temperature from day to night temperature fluctuations and provides a largely self-regulating environment. Reducing the amount of mechanical equipment needed for heating and cooling means less energy consumption, resulting in greater cost savings throughout the year.



### Stabilizing effect of thermal mass on internal temperature.

Based on no additional mechanical heating or cooling.  
 For more information on r-value and thermal mass visit [nudura.com/thermalmass](http://nudura.com/thermalmass)

## disaster resilience.

The performance of a NUDURA Wall System is designed to withstand some of Mother Nature's worst and have been used for commercial and residential structures throughout North America, saving building owners from having to rebuild their homes and businesses. With NUDURA you can be sure that your home will withstand high winds, fire, seasonal elements and the test of time. The strength of NUDURA comes from the steel reinforced solid concrete core, resulting in greater impact resistance. NUDURA structures can withstand winds up to 250 mph (402 kph) ensuring that your family and home are safe and secure in almost any situation.

In 2004, a home built with NUDURA Insulated Concrete Forms survived the severe storm in Florida while other wood frame built homes in the neighborhood did not.



This is a NUDURA home

Florida 2004

### Exterior Finishes

Easily apply a variety of wall finishes directly to the NUDURA® Wall System.



Exterior Finish Examples



The combination of rising energy requirements and fuel costs means that we need to make the most of building technologies to heat and cool our homes. This requires a whole building approach to design, which doesn't have to be complicated. NUDURA Insulated Concrete Forms are energy efficient construction materials that provide maximum comfort and energy solutions for your entire home. NUDURA energy efficient construction materials provide up to 50% energy savings compared to traditional building methods using wood.

#### NUDURA Insulated Concrete Forms Contribute to LEED®

If you are thinking about building to LEED® Standard, NUDURA can contribute greatly to a high level of LEED® Points. Visit [nudura.com](http://nudura.com) for more information on our contribution to LEED®

*"We took additional steps to lower the carbon footprint through the design of the heating system including the in-floor heating for which NUDURA products provided the insulation. Having lived in the home for over two and a half years, the benefits continue to materialize. Our energy conservation goal has been surpassed and we have reduced our consumption of Natural Gas by more than 50%."*  
- Roz, NUDURA Home Owner



# eco-friendly homes for future generations.

## building a better future.

- **Recycled Materials** - NUDURA forms are manufactured from EPS (Expanded Polystyrene). NUDURA's patented folding web design is manufactured from 100% recycled polypropylene and steel.
- **Building Durability** - NUDURA forms offer a structure built out of concrete, one of the most durable building materials which result in buildings that stand the test of time. Building with NUDURA means high impact resistance and maximum safety in high wind areas.
- **Waste Reduction** - The unique 4-Way Reversible System from NUDURA creates less waste during the construction process, sending less waste to our landfills. All waste is 100% recyclable\*.
- **Mold Resistant** - NUDURA forms have been laboratory tested and will not support mold growth unlike traditional wood frame structures providing healthier indoor living and working environments.
- **Energy Performance** - A NUDURA home's superior energy performance can provide savings up to 50% in annual energy costs. Building your home with NUDURA Insulated Concrete Forms reduces the operational energy demands, and as a result, the home's carbon footprint on the environment.
- **Improved Indoor Air Quality** - The end result is an airtight structure that enables building mechanical systems to heat, cool and ventilate the structure more efficiently, creating a healthier living or working environment. NUDURA forms do not emit CFC's or HCFC's thereby improving indoor air quality.



\*Subject to local recycling programs.

# service is our foundation for customer satisfaction.

*"During the design and construction process, NUDURA's technical support team enabled us to optimize the design, perform enhancements and save on costs."*

*- Dan, NUDURA Home Owner*



The next step to building your NUDURA home is to find a Trained NUDURA Installer (contractor) through a local NUDURA Authorized Distributor. NUDURA distributors provide extensive technical support and service, installation recommendations to maximize efficiency and cost savings, and provide current code compliance advice for local, regional, and national building codes. **Call 866-468-6299 to locate a distributor in your area.**

## quality assurance.

NUDURA forms are manufactured in house to allow full control over the manufacturing process, ensuring our forms are manufactured to the highest standards. NUDURA is audited quarterly by Wamock/Hersey which conducts regular plant inspections to ensure all aspects of NUDURA products are consistent. Our forms undergo rigorous testing everyday to ensure the quality is the same for every NUDURA product.

## code approvals and evaluations.

NUDURA has a wide variety of code approvals for North America and Europe and is tested to the highest standards. NUDURA products (when installed per Code requirements) have been designed, tested and approved to comply (i.e. meet or exceed minimum compliance benchmarks) by all the following applicable Codes Standards and Evaluation Criteria for the use in both combustible and non-combustible construction for all types of building occupancies and construction types. Visit our Technical Centre at nudura.com for Testing Standards Compliance and Code Compliance Evaluations.



# RetroFit

NUDURA Insulation Technology

Easy Installation. Superior Performance.



## professional online tools and resources.

NUDURA makes the design process with the NUDURA Wall System as easy and efficient as possible. Our website provides valuable design tools and resources for architects, contractors, and design professionals.



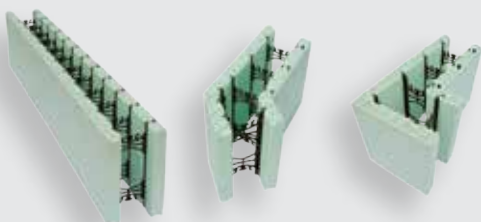
Our network of Authorized NUDURA Distributors can also provide industry leading technical support.

## basic installation training.

Let your builder know we offer training.

Contractors, architects, engineers and design professionals can register for the NUDURA Training Academy one-day Insulated Concrete Form basic installation course to ensure job efficiency and confidence.

To locate a training course held in your area visit [nudura.com/trainingacademy](http://nudura.com/trainingacademy) or contact one of our Authorized NUDURA Distributors.



## Greater Value and Comfort

- An easy-to-use insulation solution for finishing basements or insulating interior/exterior block walls
- 4' x 8' (1.2m x 2.4m) EPS sheets make installation fast and easy
- Saves time & money compared to other multi-step finishing methods
- Provides up to R-14 insulation
- Reduce heating and cooling costs
- Greater energy savings and comfort
- Moisture resistant
- Environmentally friendly



Watch our RetroFit Installation Video.

For more information visit [nudura.com/retrofit](http://nudura.com/retrofit)



Over 50 years of building experience.

*By using NUDURA Insulated Concrete Forms to build your next home you can ensure you are choosing the best building solution available today.*



The information contained in this NUDURA<sup>®</sup> Product Guide is presented only for the purpose of providing information on the various products forming part of the NUDURA Insulated Concrete Wall Forming System. This NUDURA Product Guide SHALL NOT be used as a substitute for professional engineering consultation. NUDURA makes no general warranties to the specific applicability of any of the products to any or all situations for which a designer may elect their specific use. Final amendment or modification to suit the exact circumstance of employment of any such products is the responsibility of the project designer. NUDURA has no control over the installation or workmanship used in the assembly or installation of the NUDURA products. Therefore, NUDURA cannot be held liable for any general, special, direct, indirect or consequential damages, including bodily harm, that may be suffered by any person including, without limitation, the installer, contractor, architect, engineer, homeowner or building owner due to the use, assembly or installation of the NUDURA products. The NUDURA products described herein are sold subject to the NUDURA Limited Warranty. NUDURA<sup>®</sup>, N Design<sup>®</sup>, Integrated Building Technology<sup>®</sup>, Building Has Evolved<sup>®</sup>, DURALOK Technology<sup>®</sup>, DURAFOLD Technology<sup>®</sup>, DURAMAX Technology<sup>®</sup> and DURA MULTI-LINK<sup>™</sup> are registered and unregistered trademarks of NUDURA Corporation in Canada, the United States and other countries, used under license by NUDURA Inc.

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