



Nudura. Building Has Evolved.™

Energy Efficient. Environmentally Friendly. Superior Strength. Maximum Comfort.



 **NUDURA®**
INTEGRATED BUILDING TECHNOLOGY
Building Value.

THE RIGHT CHOICE FOR YOUR NEXT HOME FOR MORE THAN ONE REASON

Homes today have to be more than just esthetically pleasing, they have to provide benefits. Open the door to a NUDURA home and see how you can enjoy greater comfort, safety, energy efficiency and a healthier and more durable home.



COST EFFICIENCY

UP TO 2X GREATER* ENERGY EFFICIENCY

With growing energy costs, building a home that is more energy efficient can save you significant amounts of money on a yearly basis. NUDURA is a highly insulated concrete wall that vastly reduces air infiltration, optimizing energy performance. When you combine two panels of NUDURA's 2^{5/8}" EPS foam with the structural strength of reinforced concrete, along with our Ceiling and Floor Technology, you can be sure you are building a home that has superior energy efficiency over traditional building methods.

NUDURA COMFORT

UP TO 9X GREATER* HOME COMFORT

Outside cold can easily travel through a typical wood-framed wall causing thermal bridging, creating uncomfortable cold spots inside your home. NUDURA® walls offer superior performance when it comes to thermal bridging, resulting in even temperatures throughout your home with reduced drafts and cold spots, which optimizes energy performance.

UP TO 3X GREATER* SOUND RESISTANCE

NUDURA's double foam insulated concrete core acts as an effective sound barrier, filtering out unwanted noise, dampening sound vibrations and ensuring a serene and comfortable ambience within your home.

To achieve sound resistance of up to 3x, a NUDURA® 6" form or higher must be used.

SAFETY FOR YOUR FAMILY

UP TO 4X GREATER* FIRE RESISTANCE

Building with NUDURA offers your family greater fire protection with up to a 3-4 hour fire protection rating (4 times that of a typical wood framed home).

NUDURA® walls are built with steel reinforced concrete and a non toxic fire retardant expanded polystyrene foam. Compared to wood-framed walls, NUDURA is far more likely to remain standing in case of a fire and is far more resistant to the spread of fire.



UP TO 9X MORE DURABLE - SUPERIOR STORM RESISTANCE

Compared to traditional building methods like wood or steel framed walls, NUDURA® provides greater durability and strength with the use of concrete. NUDURA® walls can better withstand mother nature's worst – especially in high wind areas that are prone to hurricanes and tornadoes. NUDURA® walls can withstand winds of up to 250 mph. Also available from NUDURA is a hurricane anchor system for roofs that is embedded into the concrete core of the wall system to secure your home's roof in high wind areas.

LONG-TERM VALUE

The main structural element in a NUDURA home is reinforced concrete. The result is a home that provides substantially better durability and that requires less maintenance and repair. A NUDURA home is built to last, and retains its value longer.

**This is a
NUDURA home**

Florida 2004



* Compared to a traditional wood framed home.
* For reference for performance claims please refer to back cover.

building green

starts with NUDURA

Not only are NUDURA homes strong, safe and energy efficient, they also contribute significantly to a "green" home. NUDURA is committed to improving the building process to support environmental issues and reduce

energy consumption while providing a healthy living space.

Building your home with NUDURA saves valuable environmental resources.

A HEALTHIER LIVING ENVIRONMENT

NUDURA combines the use of polystyrene (EPS) foam with reinforced concrete, creating a home that is extremely moisture resistant. The NUDURA® Wall System eliminates gaps where mold forms, unlike traditional building methods where moisture gets trapped in the building phase. NUDURA's tight construction allows operational equipment to heat, cool and ventilate the structure more efficiently, creating a healthier living environment. The operating efficiency provided by NUDURA promotes healthy indoor air quality.

BETTER HOMES FOR OUR ENVIRONMENT

With NUDURA's durable construction technology, it is possible to create long lasting buildings with high energy efficiency. It is no longer reasonable to construct buildings that only last 20-30 years and have excessive heat and energy loss factors. **When you build with NUDURA you will be saving valuable environmental resources, and will consume less energy** – 2 major factors that are of great concern environmentally. NUDURA's unique technological design also allows for minimal waste during the construction process, reducing the amount of waste sent to our landfills.

NUDURA PRODUCT HIGHLIGHTS

- NUDURA is manufactured from recycled or recyclable material.
- NUDURA buildings produce little waste during construction, all waste is 100% recyclable. (Subject to local recycling programs.)
- NUDURA® forms emit no CFC or HCFC's.
- NUDURA® forms are manufactured under strict guidelines using only processes that are non ozone-depleting.
- The NUDURA double foam insulated concrete core acts as an effective sound barrier, dampening sound vibrations, creating a serene and comfortable ambience.



BUILDING WITH NUDURA

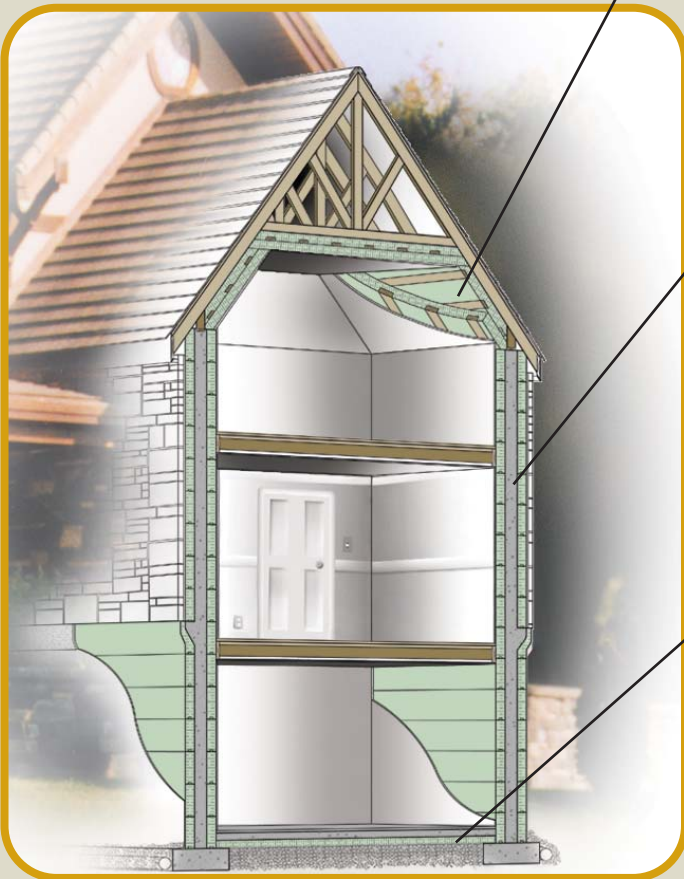
Building with NUDURA allows you the freedom to build your home to any shape or size and gives you the versatility to design your home the way you want without any limitations. Finding quality building materials that will fulfill these design requirements, within the budget, is often difficult. With NUDURA Integrated Building Technology you can push the limits of design without pushing the limits of your budget.

"Houses built with NUDURA's Integrated Building Technology can save you up to 50-70% in energy costs annually"



THE NUDURA BUILDING ENVELOPE

When you combine the full line of NUDURA® products you will get a more comfortable, durable and efficient home. The NUDURA® Wall System provides you with strength, durability and energy efficiency. Combine that with our Ceiling and Floor Technology, and NUDURA creates the most energy efficient home possible.



CEILING TECHNOLOGY

At NUDURA we understand the importance of a fully integrated building envelope. Combine our Ceiling Technology with our wall system and you get increased benefits for your home:

- Two layers of foam, reinforced with embedded wood strapping completes the building envelope for efficient insulation.
- Reduces air filtration so efficiently no other vapor barrier is required.
- Used in a double layer, it further reduces thermal bridging, increasing energy efficiency and comfort in your home.
- Foam doesn't contain CFC's or HCFC's making it safe for a variety of applications such as retro-fitting uninsulated floors, walls and ceilings for cottages, homes and garages.

SIX WALL ELEMENTS IN ONE PRODUCT

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

- | | |
|------------------|--|
| 1 Form system | 4 Air barrier |
| 2 Wall structure | 5 Vapor barrier |
| 3 Insulation | 6 Interior and exterior finish anchorage |

Having six wall elements in one product eliminates costly building steps and allows your home to be constructed faster and more efficiently.

NUDURA® walls offer you a monolithic reinforced concrete wall that is up to 9 times stronger than a conventional wood framed wall.

FLOOR TECHNOLOGY

The floor of a building is often the most ignored surface when it comes to insulation. The floor of your home when insulated with NUDURA® Floor Technology completes the building envelope and increases your home's comfort and energy efficiency. NUDURA® Floor Technology provides:

- A cost effective layer of protection against transference from the ground.
- An effective base for radiant floor heating.

For full line of NUDURA® products and accessories visit Nudura.com and download our product catalog.

*Compared to a traditional wood framed home.



WHAT YOU CAN EXPECT FROM NUDURA

NUDURA is committed to leading the industry in product innovation. NUDURA's research and development group are dedicated to providing products that make building more energy efficient and safer for your family.

INNOVATIVE TECHNOLOGY

At NUDURA we are providing you with quality products that are not only better for your family but also better for the environment. NUDURA is leading the way with product innovations:

LARGER STANDARD FORM NUDURA is the only Insulated Concrete Form manufacturer to create a larger standard form that covers 12 sq. ft., resulting in less waste and labor.

PATENTED 4-WAY REVERSIBLE INTERLOCK The patented foam interlock allows the form to be 4 way reversible, almost eliminating waste. Eliminates left and right corners which allows NUDURA Forms to be used in twice as many scenarios as non reversible forms.

INNOVATIVE HINGED FOLDING WEB The patented hinged web allows Nudura to be shipped flat, allowing for 40% more product on a truck. This patented technology also eliminates costly assembly time on the job site – just unfold and stack. NUDURA's Web also has pre-position cradles built in, allowing rebar to be locked into place in a variety of positions for various building types.

LOCKING FASTENING STRIP With NUDURA's Locking Fastening Strip Connector, the need to tape or wire forms is virtually eliminated. Our patented Fastening Strip securely locks forms into place eliminating float and compression – two major issues facing builders and contractors. NUDURA's unique design also provides continuous fastening for finish materials on 8" (203mm) centers.

T FORM NUDURA was the first to create an innovative T Form.

Combine all of this with a fully integrated building system, and you can be sure you are building your home with the most technologically advanced ICF available today.

QUALITY PRODUCTS

NUDURA manufacturing is unmatched by other Insulated Concrete Forms. NUDURA forms are manufactured in house without using sub-manufacturing. NUDURA has full control over the manufacturing process which allows our forms to be manufactured to the highest standards. NUDURA is audited quarterly by Warnock/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 & TESTING

All NUDURA distributors provide the information needed to make sure your home is built with proven installation methods and provide necessary information about local and state building codes. In various tests NUDURA® walls have met and most often exceeded statutory building codes around the globe. NUDURA is tested to the highest standards, providing you the safest, most comfortable home possible and has a wide variety of code approvals for North America and Europe.

WHY WOOD YOU?™

	NUDURA Wall System	Traditional Stick Frame
Energy Efficiency	<ul style="list-style-type: none"> No Thermal Bridging Energy Savings from 40% up to 70%* Thermal Concrete Mass 	<ul style="list-style-type: none"> Thermal Bridging Provides lower efficiency in energy Performance*** Hollow Cavity (Batt Insulation)
The Environment	<ul style="list-style-type: none"> Reduces Green House gases Saves Environmental Resources Lifetime Value 	<ul style="list-style-type: none"> Minimal greenhouse gas reduction Uses Environmental Resources 25-30 year service life
Safety & Strength	<ul style="list-style-type: none"> Withstand winds of up to 250mph & 115 mph debris impact 4 Hour fire protection Solid Concrete Core 	<ul style="list-style-type: none"> Minimal or no resistance to wind born debris damage 45-minute fire rating only Batt insulation/wood subject to sagging/ dry rot/ moisture
Living Space	<ul style="list-style-type: none"> NUDURA Forms are non-toxic and do not emit CFC's or HCFC's NUDURA Walls do not produce mold growth. STC Rating vary from 50-55** depending on core thickness 	<ul style="list-style-type: none"> Manufactured Wood products can contain adhesives and formaldehyde Wood walls can retain moisture - allowing mold to grow Sound easily travels through wood walls (typically STC 33****)

* Based on actual In-field comparisons of ICF versus traditional frame constructed buildings of similar size

** NUDURA STC Rating based on 6" core wall and above.

*** Based on wood frame buildings constructed to meet minimum national or state prov. building code requirements

**** Frame wall STC Rating based on standard code constructed frame wall for both US and Canada

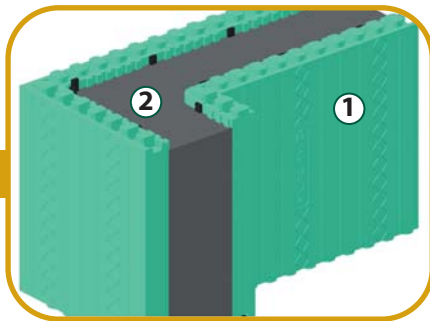
Building Has Evolved™

For more information on NUDURA's code approvals and testing visit Nudura.com.

THE INTEGRATED PHILOSOPHY

NUDURA Corporation prides itself on service and quality. With over 50 years of combined industry experience NUDURA brings you the present and future of Insulated Concrete Form construction.

- ① *Double Insulation protection for maximum comfort*
- ② *Reinforced monolithic concrete core for maximum safety and energy efficiency*



NUDURA – AN INTEGRATED PHILOSOPHY

The concept for NUDURA was inspired by an interest in consolidating the best features of existing Insulated Concrete Form (ICF) products and then improving on them to produce the most technologically advanced Insulated Concrete Form. From NUDURA's inception, our philosophy has been one of integration.

cost efficiency and energy efficiency. We are committed to offering more than just a wall—we offer you a product that is healthier to live in, stronger, more energy efficient, and more environmentally friendly to build with.

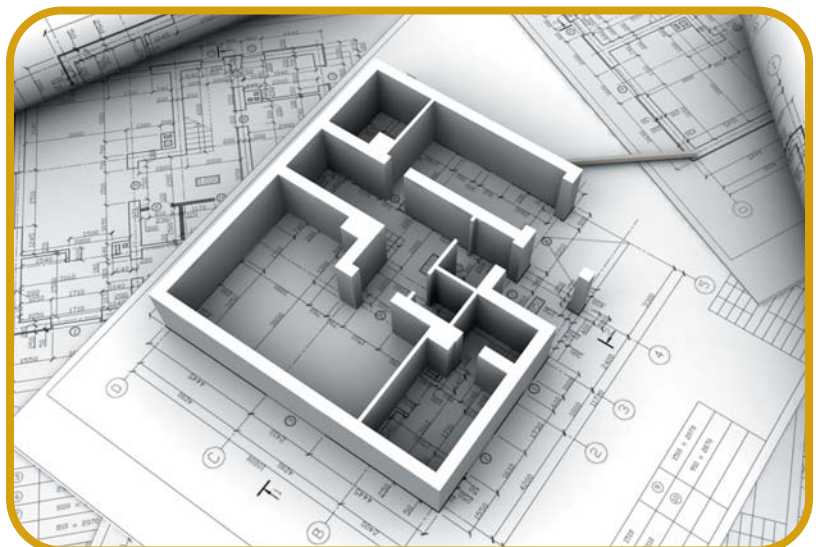


INTEGRATING SALES WITH SERVICE

With the most technologically advanced Insulated Concrete Form, comes service to match. NUDURA aligns itself with the best companies in local geographic areas to represent our products. With full technical support from NUDURA you can be sure you and your builder will have access to one of NUDURA's authorized distributors throughout the process of building with the NUDURA system. NUDURA provides contractor training through our distributor network. For more information consult with your local distributor for contractors or builders that have taken the NUDURA Training Course.

INTEGRATING VALUE

The flexible design capabilities of NUDURA® products allow for innovative building concepts while allowing for cost competitive construction. NUDURA has developed flooring and ceiling technology which integrates with our wall forms to create a building envelope that maximizes comfort, durability,



Quality. Support. Product Innovations. Relationships.



BUILDING BETTER BUILDING STRONGER

Building with NUDURA provides substantial benefits over traditional building methods. In striving to provide a better quality of life, NUDURA homes offer safety without compromise.

◀ **Eagle Rising**
"BEST" Custom Home"
"BEST" Overall Project"
presented by ICF Builder Magazine

THE DESIGN PROCESS

Talk to any NUDURA customer and they'll tell you that NUDURA® homes offer superior features and benefits compared to traditional building methods. Unlike other building methods, when you build with NUDURA, you get the advantage of building with an Integrated Building System; Wall Technology, Ceiling Technology and Floor Technology.

WHAT HOMEOWNERS ARE SAYING

"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. When we walk into our home the comfort level in both the winter and summer is fantastic. We also noticed that our home is much quieter, an added benefit we weren't looking for. Another attribute we really liked about NUDURA was the fact that it is an environmentally friendly product. 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 Homeowner



WHAT ARCHITECTS ARE SAYING

In designing Eagle Rising, the owners had done their research, and knew they were using ICFs right from the start. They wanted the house to be energy efficient, and the NUDURA ICFs offer both a good R value and a monolithic wall with minimal air leakage – a major contributor to heat loss. Also, the building site was exposed to extremely high winds, so we wanted a structure that would not only withstand the power of the gusts, but minimize the noise as well.

Additionally, knowing that the NUDURA system is designed to accommodate curves and 45-degree angles, I was free to play with those shapes without worrying that I was dramatically increasing the cost. Being able to construct the walls initially out of just the lightweight forms, which are easy to stack and to cut, greatly simplified the construction of the home's complex geometries. And the fact that NUDURA pre-cut the forms for the curved walls assured a precise radius, avoided any potential job-site errors (which also avoids costly waste), and saved a tremendous amount of time. Finally, as a green architect, I really appreciate the fact that NUDURA forms are designed to collapse for transport, effectively halving the fuel needed to deliver them..."

James R. Plagmann, AIA
 Human Nature Architecture

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All NUDURA® Products are backed by over 50 years of building experience, and 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) set 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:

TESTING STANDARDS COMPLIANCE :

American Concrete Institute – form design assures walls conform with ACI 318

American Society for Testing and Materials Stds: C203, C272, C303, C518, C578, D635, D1621, D1622, D1761, D1929, D2126, E84, E90, E96, E119

Canadian Standards Assoc. form design assures walls conform with CSA A23.3

National Fire Protection Association NFPA Stds: 259, 268, 285, 286

Uniform Building Code (UBC) Stds. UBC-26-3,26-4

Underwriters Laboratories Inc. UL263 (2 Hr and 4 Hr)

Underwriters Laboratories of Canada: Stds;CAN4--S114, CAN4 –S124,

CAN4 –S102, CAN/ULC S101 (2 Hr and 4 Hr) CAN/ULC S701

CODE COMPLIANCE EVALUATIONS

Canada: National – CCMC: 13063-R
Ontario – MMAH: 04-13-117 (13063-R)
New Brunswick –NBFMO: File: 3955 –Compliance to 82-20

Europe: European Union (BBA): ETA-07/0034

USA: National – ICC-ES: ESR-2092
(under review to 2009 IRC/IBC)
Florida -BCO FL1585 (under review to 2007 FBC)
Miami Dade County-BCCO: NOA No. 05-0330.02
Wisconsin –DOC S&BD: 200427-I
New York City: – OTCR: complies with BB 2009-020
Los Angeles: RR25595 (under review to 2008 CBC)



Mixed Sources

Product group from well-managed forests, controlled sources and recycled wood or fiber

www.fsc.org Cert no. SW-COC-002080
© 1996 Forest Stewardship Council

www.nudura.com



866-468-6299

Contact us for the distributor nearest you

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The performance claims referred to in this Brochure are based on a comparison between a typical 8' high NUDURA® wall with a 6" core, properly built to the National Building Code of Canada (NBC) and installed in accordance with NUDURA® Corporation's specifications and a typical 8' high 2"x 6" wood-framed wall insulated with R20 batt insulation, properly built to NBC and with regard to "fire resistance" on ratings listed in the NBC, with regard to "sound resistance" on ratings listed in the NBC and in the study "Insulating Concrete Forms" by VanderWerf, Feige, Chammas and Lemay, with regard to "durable" and

"comfort" on an independent analysis and with regards to "energy efficiency" in the study "Energy Consumption of Concrete Homes Versus Wood Frame Homes" published by Dr. Pieter VanderWerf for the Portland Cement Association. Such performance claims may vary depending on certain atmospheric conditions and geographic locations. STC Ratings are based on a 6" (152mm) core form and greater. Note: 4" (102mm) form is not to be used as a suite or corridor separation wall, except as specified by NUDURA. For further details or questions please contact NUDURA.