

# RetroFit

NUDURA Insulation Technology



## Easy Installation. Superior Performance.

NUDURA RetroFit Insulation Technology is an easy-to-use insulation solution for finishing basements or insulating interior or exterior block walls. Installation is fast and effortless, compared to conventional multi-step finishing methods. The NUDURA RetroFit Insulation Technology insulates and creates fastening points in one simple step.



Simply attach NUDURA's standard 4' x 8' (1.2 m x 2.4 m) sheets to the wall using the embedded fastening strip and a concrete screw. NUDURA RetroFit Insulation Technology panels fit seamlessly together with a shiplap system, electrical installation is easily completed, and drywall or Gypsum Board is attached using the 2 1/2" (64 mm) fastening strip located on 16" (400 mm) centers.



When installed, NUDURA RetroFit Insulation Technology provides insulation performance ratings up to R-15.5, resulting in greater energy efficiency and comfort to any home or commercial structure.

For more information or to download our [Technical Data Sheet](#) visit [nudura.com](http://nudura.com)



Watch our RetroFit Installation Video.

## Eco-Friendly Solutions

The combination of rising energy requirements and fuel costs means that we need to make the most of building technology to insulate homes and commercial structures. NUDURA RetroFit Insulation Technology is an ideal energy efficient solution that reduces energy consumption, provides additional comfort and increases energy savings in one easy step.

## Greater Value and Comfort

- Saves on heating and cooling costs
- Performance Ratings up to R-15.5 (RSI 2.73 & U-Value 0.366 w/m<sup>2</sup>•k)
- Increases occupancy comfort
- Moisture resistant
- Environmentally friendly
- No VOC's, CFC's or HCFC's

## Installation and Application

- Available in 4' x 8' (1.2 m x 2.4 m) sheets and thicknesses of 2 1/2" (67 mm), 3 1/2" (89 mm), and 3 7/8" (98 mm)
- Made of EPS (Expanded Polystyrene) making it lightweight and easy to cut
- Simple to install with embedded 2 1/2" (64 mm) wood or polystyrene fastening strips located on 16" (400 mm) centers
- Panels easily fit together with a shiplap system to eliminate thermal bridging
- Insulation for basement walls or interior, exterior block walls



## Wall Preparation

Before installation of the NUDURA Insulation Technology panels, remove any excess concrete debris that may have seeped between forming panels during the concrete pour. Simply chip off the excess concrete with a brick or concrete chisel to ensure the panels sit flat on the foundation wall (Figure 1). **Note:** Check with local building codes to determine if an air barrier consisting of either TYVEC or TYPAR is required to be placed between the wall and the insulation panel.



Figure 1

## Installation

### 1. Install NUDURA Insulation Technology

Starting at the corner of the foundation wall, remove the shoulder edge to allow proper spacing so Panel B can be positioned (Figure 2). Removing the shoulder edge from the top and bottom of the panel may be necessary depending on ceiling heights. Panel B will have to have the shoulder (Figure 3) edge removed to be placed against panel A leaving a 1/2" gap. This installation step will have to be done at every inside corner to ensure the proper attachment of Gypsum or drywall can be made. Each corner will then have to be filled with NUDURA Low Expansion Spray Foam to create a thermal barrier (as shown in Figure 4).

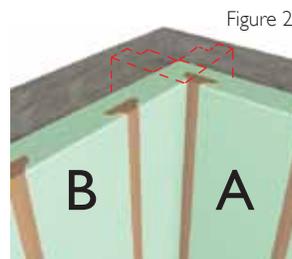
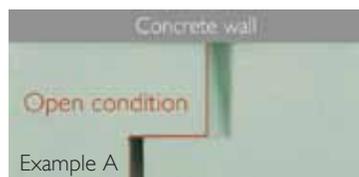


Figure 2



Figure 3

Attach NUDURA Insulation Technology using a mechanical fastener such as a concrete screw [5" for 2 5/8 (67mm) or 3 1/2" (89mm)]. To make fastening the panels easier, place your first fastener into the middle of the panel on the fastening strip to hold it in place (as shown in Figure 5). Fasteners are to be placed vertically every 2 feet on the fastening strip, on center. Once the Panel is secure, place the next panel in place using the shiplap system. Note: Place the shiplap edge in an open condition for easy installation (see Example A). **Note:** For walls less than 8' high, notch the panel to fit around the floor joist and seal with NUDURA Low Expansion Spray Foam.



Example A



Figure 4



Figure 5

### Installation Around Windows

For installation around windows, cut and remove the appropriate amount of panel needed, then fasten (Figure 6). When installing panels around windows, remember to leave a gap between the cut panel and the window frame. Once installation is complete, fill the gap between the window and the insulation (if required) with NUDURA's Low Expansion Spray Foam to create a thermal barrier around the window.



Figure 6

### Installation for Finishing Outside Corners (optional)

In some instances it may be necessary to install a piece of aluminum or sheet metal on outside corners for corner bead installation. Consult your local building supply chain for material that is pre-folded to 90° to fit the necessary size requirements. To install, simply cut to measure, and install at the same time as drywall installation. Attach the material on the outside corner; then place drywall over top and fasten drywall to the fastening strips.

## 2. Electrical Installation

To install electrical wiring use a hot knife, router or fine bladed knife. Never cut through the wood or polystyrene fastening strip. Electrical is to be placed behind the fastening strip by removing the EPS. Install electrical wiring by first cutting a channel (1 1/4" min.) into the panel (Figure 7). Electrical boxes are easily fastened to the fastening strip buy using the appropriate mechanical fastening method (shown in Figure 8). For electrical installation please refer to local and national building codes. Electrical wiring should always be installed by a licensed electrical contractor.

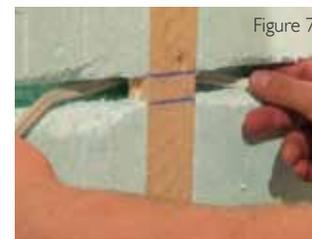


Figure 7



Figure 8

## 3. Drywall Installation

Install 1/2" (12 mm) drywall and connect to the fastening strip using a 1 1/4" (32 mm) drywall screw. Fastening strips are placed 16" (400 mm) on center for easy installation (Figure 9).



Figure 9

**Note:** For all types of corner bead installation, consult with your local building supply chain or to the manufacturers suggested installation guidelines.



NUDURA® has no control over the installation or workmanship used in the assembly or the installation of the NUDURA® products, therefore, NUDURA® shall not be 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 customer due to the use, assembly or installation of NUDURA®. Information and suggestions contained in this brochure are offered for information purposes only and to the best of our knowledge can be considered reliable. All suggested applications must first be evaluated with regard to the specific circumstances, and in light thereof, may need to be adapted or modified if necessary to take account of local conditions and materials used. This brochure cannot in any case be considered an Undertaking or Guarantee whether concerning either the information data or suggestions included. Be sure to consult relevant building codes to ensure all applicable regulations are observed.