FOAMULAR® NGX™

HIGH PERFORMANCE XPS RIGID INSULATION

COMPLETE PRODUCT
AND INSTALLATION GUIDE

BUILD ABOVE THE REST

TOTAL HEAT, AIR AND MOISTURE MANAGEMENT

COMFORT**SHIELD**®

RESIDENTIAL ENCLOSURE SYSTEM

1 EXTERIOR WALLS

- **PINK NEXT GEN™** FIBERGLAS® Insulation R-24 and
- **FOAMULAR® NGX™ CODEBORD®/C-200** XPS Rigid Insulation R-10 (2") with JointSealR® and FlashSealR® Tapes

2 BASEMENT WALLS

EXTERIOR WALL

- **FOAMULAR® NGX™ CODEBORD®/C-200** XPS Rigid Insulation R-20 (4")

INTERIOR WALL

- **FOAMULAR® NGX™ CODEBORD®/C-200** XPS Rigid Insulation R-10 (2") plus R-20 **PINK NEXT GEN™** FIBERGLAS® Insulation

3 BASEMENT FLOORS

- **FOAMULAR® NGX™ CODEBORD®/C-200** XPS Rigid Insulation R-10 (2")

4 INTERIOR WALLS & FLOORS

- **QUIETZONE® PINK®** FIBERGLAS® Acoustic Insulation

5 GARAGE SLAB

- **FOAMULAR® NGX™ C-300** XPS Rigid Insulation R-10 (2")

6 FLOORS OVER UNHEATED SPACES

- **PINK NEXT GEN™** FIBERGLAS® Insulation R-40
- **PROPINK®** FIBERGLAS® Blown Insulation R-40 = 14.6"

7 CATHEDRAL CEILINGS

- **PINK NEXT GEN™** FIBERGLAS® Insulation R-40

8 ATTICS

- **AttiCat®** Expanding Blown-In Insulation System R-80 = 28.5"
- **PROPINK®** FIBERGLAS® Blown Insulation R-80 = 28.5"
- **PINK NEXT GEN™** FIBERGLAS® Insulation R-80 = 23.6"
- **FOAMULAR® NGX™ CODEBORD®/C-200** XPS Rigid Insulation - Below Rafters
- ***raft-R-mate®*** Attic Rafter Vents

9 ROOFING

- **TruDefinition® Duration®** Shingles with SureNail® Technology
- **ProEdge®** Hip & Ridge Shingles
- **ProArmor®** Underlayment
- **Weatherlock®** Ice & Water Barrier
- **Starter Strip Plus** Shingle

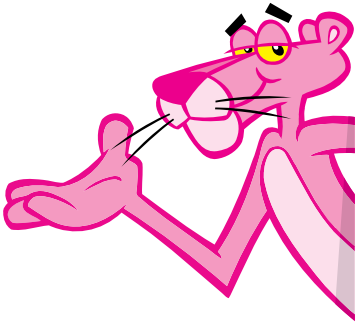
FOAMULAR® NGX™

BUILD ABOVE THE REST

FOAMULAR® NGX™

EXTRUDED POLYSTYRENE RIGID INSULATION

Insulate your home with FOAMULAR® NGX™ Extruded Polystyrene Rigid Insulation, a moisture-resistant, rigid foam insulation, which can be installed on interior or exterior of walls, foundation walls and under concrete floor slabs. With a thermal resistance of R-5 per inch of thickness, it will help you save money[1] on heating and cooling costs. Lightweight, durable and impact-resistant, FOAMULAR® NGX™ products are easy to handle and install, offering all of the performance and ease of use you expect from Owens Corning® FOAMULAR® with a 90% reduction in global warming potential[2] Choose FOAMULAR® NGX™ Rigid Insulation for your next renovation and feel confident that you are helping to make an energy-efficient world.



Benefits:

- Helps to reduce heat loss or heat gain, saving money on heating and cooling costs[1]
- Long-term thermal resistance – R-5 per inch of thickness
- Easy to install, lightweight and durable
- Moisture-resistant
- 20% recycled content[3]
- 90% reduction in global warming potential[2]
- GREENGUARD Gold certified for indoor air quality

CALCULATE YOUR NEEDS

FOAMULAR® NGX™ CODEBORD®, C-200 AND C-300 EXTRUDED POLYSTYRENE RIGID INSULATION

AS EASY AS 1, 2, 3...

It's easy to calculate the number of rigid foam panels you'll need to complete your project. Here's how:

1. Total area:

Determine the area in ft^2/m^2 to be insulated by multiplying the wall/floor length by the wall height/floor width in ft/m.

LENGTH ____ X HEIGHT ____ = ____ FT^2/M^2

2. Calculate how many sheets you need:

Divide total area to be insulated by ft^2/m^2 per sheet to determine the total number of sheets required. **TOTAL AREA IN FT^2/M^2 ____**

÷ COVERAGE AREA/SHEET IN FT^2/M^2 ____

= TOTAL NUMBER OF SHEETS ____

EXAMPLE	YOUR HOME
Wall/floor length 10 ft (3.0 m)	
Multiply by wall/floor height 8 ft (2.4 m)	x
Total square area 80 ft^2 (7.43 m^2)	=
Divided by coverage area/sheet 16 ft^2 (1.49 m^2) (e.g., 16 ft^2 (1.49 m^2) for 2 x 8 sheets)	÷
Divided by coverage area/sheet 32 ft^2 (2.97 m^2) (e.g., 32 ft^2 (2.97 m^2) for 4 x 8 sheets)	÷

Number of sheets required:

2 x 8 sheets = 5

4 x 8 sheets = 2.5

FOAMULAR® NGX™ CODEBORD® AND C-200 ATTIC, BELOW RAFTERS

EXTRUDED POLYSTYRENE RIGID INSULATION

Used for foundation walls (interior and exterior), underneath or on top floor slabs and as exterior insulation for above grade wall assemblies.

SPECIFICATIONS:

- Below grade/interior/exterior
- Concrete floor slabs
- 20 PSI - CodeBord® and C-200
- Butt and shiplap edges

AVAILABLE SIZES

FOAMULAR® NGX™ CodeBord® XPS Rigid Insulation

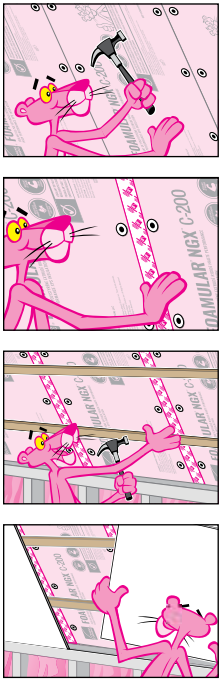
THICKNESS	WIDTH	LENGTH
1" - 3.5" (25mm - 89mm)	24" & 48" (610mm and 1220mm)	96", 108", 120" (2438mm, 2743mm, 3048mm)

FOAMULAR® NGX™ C-200 XPS Rigid Insulation

THICKNESS	WIDTH	LENGTH
1" - 4" (25mm - 102mm) in 1⁄2" (12.7mm) increments	24" (610mm)	96" (2438mm)

Consult local building materials store for availability of sizing for each product.

FOAMULAR® NGX™ CodeBord® or C-200 boards may be installed below the attic rafters to achieve maximum assembly thermal resistance while maintaining ventilation space above the installed batts. It is a good practice to fasten strapping through the foam boards to the rafters for easy attachment of drywall.



1. CEILING FOAM BOARD INSTALLATION. Once the batt insulation has been installed flush with the underside of the framing, install FOAMULAR® NGX™ CodeBord® or C-200 Rigid Insulation boards against the ceiling framing, using nails and washers.

2. SEALING JOINTS AND PENETRATIONS. Tape all joints and penetrations with approved Owens Corning® JointSealR® tape.

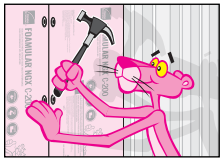
3. VAPOUR RETARDER. Consult local Building Code to determine if a polyethylene sheet material is required or if foam board with taped joints can function as the vapour retarder.

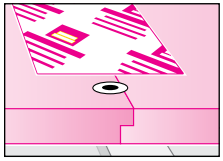
4. GYPSUM SUPPORT. Install wood furring strips perpendicular to the ceiling structure with screws every 12" (305mm) on-centre.

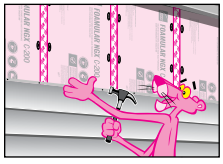
5. INSTALLING GYPSUM BOARD. Install gypsum board or other ceiling finish to the wood furring strips.

Recommended thickness: 2" (51mm)

EXTERIOR WALLS







1. INSTALLING CODEBORD® OR C-200. Install insulation panels vertically on the outside exterior walls. Begin installation in a corner of the wall and trim off shiplap edge of panel so it is flush with the outer edge of the stud. Fasten panels to frame with nails and washers at 6" (151mm) centres on vertical edges of panels and at 12" (305mm) on intermediate stud supports. Slide panels together ensuring vertical edges meet at and are supported by studs at 16" or 24" (406mm or 610mm) on-centre. Tape all joints with Owens Corning approved JointSealR® tape.

2. APPLYING EXTERIOR FINISH. To prevent discolouration caused by exposure to direct sunlight, attach exterior cladding over foam sheathing per manufacturer's recommendations as soon as possible.

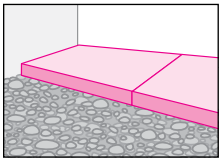
INSIDE WALLS. To complete the installation on the inside exterior walls, follow instructions under wood stud basement walls in the PINK NEXT GEN™ FIBERGLAS® Complete Product and Installation Guide.

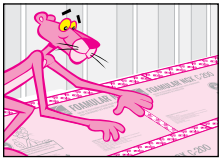
Recommended thickness and R-values:

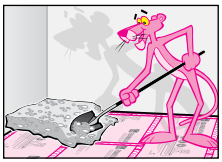
2"x4" (38mm x 89mm) Walls: One layer of 2" (38mm) FOAMULAR® NGX™ CodeBord® or C-200 Extruded Polystyrene Rigid Insulation plus one layer of R-12 or R-14 PINK NEXT GEN™ FIBERGLAS® Insulation

2"x6" (38mm x 140mm) Walls: One layer of 2" (38mm) FOAMULAR® NGX™ CodeBord® or C-200 plus one layer of R-22 or R-24 PINK NEXT GEN™ FIBERGLAS® Insulation

CONCRETE BASEMENT FLOORS







1. LAYING GRAVEL. Lay at least 4" (102mm) of coarse, clean gravel on the top of the undisturbed soil and ensure that it is level.

2. INSTALLING CODEBORD® OR C-200. Ensure panels are butted together as tight as possible. It's suggested that all joints are taped with approved Owens Corning® JointSealR® tape.

3. VAPOUR RETARDER. Consult local Building Code to determine if a polyethylene sheet material is required or if foam board with taped joints can function as the vapour retarder.

Sealing the Owens Corning® foam boards per the manufacturer's guidelines can provide a radon barrier below the concrete slab.

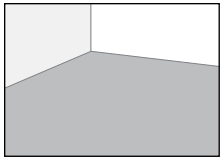
4. POURING CONCRETE. Pour concrete over the panels to desired thickness.

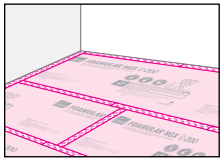
Note: *Local Building Code and Building Officials should be consulted regarding minimum construction requirements in your municipality.*

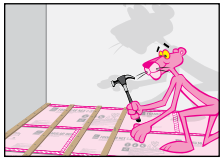
Recommended thickness: 1-1/2" or 2" (38mm or 51mm)

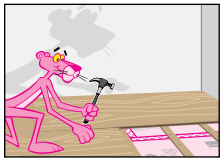
FOAMULAR® NGX™ CODEBORD® and C-200

CONCRETE BASEMENT FLOORS - EXISTING SLAB









1. PREPARE EXISTING SLAB.
Ensure existing concrete floor slab is free of cracks, voids and has been levelled.

2. INSTALLING FOAM BOARD. Ensure panels are butted together as tight as possible. It's suggested that all joints are taped with approved Owens Corning® JointSealR® tape.

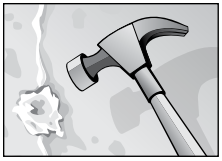
3. VAPOUR RETARDER. Consult local Building Code to determine if a polyethylene sheet material is required or if foam board with taped joints can function as the vapour retarder.

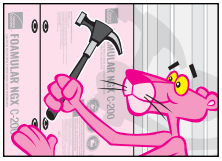
4. WOOD FURRING STRIPS. To secure foam board insulation to existing concrete floor slab fasten 1"x4" (25mm x 102mm) wood furring strips at 16" (406mm) on-centre with concrete nails or tapcon fasteners.

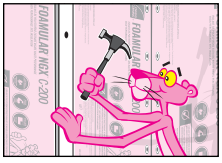
5. SUBFLOOR. Fasten minimum 5/8" (16mm) OSB or plywood to wood furring strips with screws every 12" (305mm) on-centre. Install finishing material per manufacturer's recommendation.

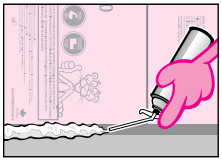
Note: *Local Building Code and Building Officials should be consulted regarding minimum construction requirements in your municipality.*

CONCRETE BASEMENT WALLS









Install polyethylene vapour barrier over foam if required. Consult applicable Building Code.

1. PREPARING WALLS. Ensure concrete walls are as flat as possible; hammer off rough spots.

2. TRIMMING AND PLACING CODEBORD® OR C-200 INSULATION TO WALL HEIGHT. Measure the height of the wall. Trim insulation to correct length and trim shiplap edge to fit corner. Place insulation vertically on the wall starting in a corner. Use a spot adhesive or concrete anchors with large washers to hold the foam boards in place against foundation wall, ensuring that foam boards are level.

3. FILLING JOINTS WITH FOAM SEALANT. Fill joint at the perimeter of the insulated wall as well as all perforations made in the insulating panel. Cut off protruding foam sealant with a knife or hacksaw blade to ensure gypsum board can be installed properly.

4. VAPOUR RETARDER. Consult local Building Code to determine if a polyethylene sheet material is required or if foam board with taped joints can function as the vapour retarder.

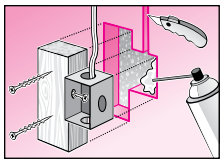
5. INSERTING WOOD FURRING STRIPS. Insert wood furring strips over insulation and anchor to concrete wall using appropriate masonry anchors a maximum of 24" (610mm) on-centre vertically.

6. FINISHING WALLS. When installation is complete, install 1/2" (13mm) gypsum board or other approved thermal barrier material using appropriate fasteners into foundation wall. Finish the gypsum board according to manufacturer's instructions. Consult the Building Code for requirements when using other finishes.

INSTALLING ELECTRICAL BOXES AND WIRING

FOAMULAR® NGX™ C-300

EXTRUDED POLYSTYRENE RIGID INSULATION



1. PREPPING ELECTRICAL BOX LOCATION. At the location of the electrical outlet, cut out a 2" (51mm) x 6" (152mm) void in the insulation.

2. FASTENING ELECTRICAL BOX. Insert a wood filler piece in the opening to fill the void and fasten to concrete wall with appropriate masonry fasteners. Cut out another void in the insulation next to the wood filler piece in order to be able to insert the electrical box and screw box into side of wood filler piece to hold it in place. Position the electrical box so that it will sit flush with the gypsum board once installed.

3. BRINGING WIRE FROM JUNCTION BOX TO OUTLET. Create a groove in the insulation board to inset electrical wire coming from junction box to outlet. Wire should be embedded 1/2" (13mm) minimum (i.e., electrical wire should be at least 1" [25mm] from drywall surface). Connect the wire to the electrical box.

4. FILLING AND SEALING. Use a foam sealant to fill the enlarged groove, the area behind the electrical box and the perimeter of the piece of wood and the electrical box.

PINK NEXT GEN™ FIBERGLAS® INSULATION

Used for under insulated garage floor slabs.

SPECIFICATIONS:

- Concrete floor slabs
- 30 PSI (C-300)
- Butt and shiplap edges

AVAILABLE SIZES

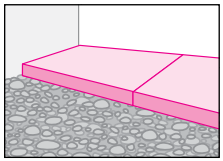
FOAMULAR® NGX™ C-300 XPS Rigid Insulation

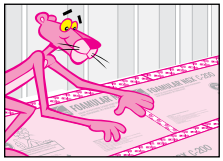
THICKNESS	WIDTH	LENGTH
1" - 4" (25mm - 102mm) in (12.7mm) 1⁄2" increments	24" (610mm)	96" (2438mm)

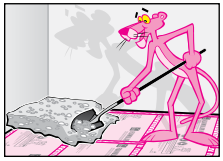
Consult local building materials store for availability of sizing for each product.

INSULATED GARAGE FLOOR

PINK NEXT GEN™ FIBERGLAS® INSULATION







1. INSTALLING C-300. Install C-300 over appropriate substrate. Ensure panels are butted together as tight as possible. It's suggested that all joints are taped with approved Owens Corning® JointSealR® tape.

2. VAPOUR RETARDER. Consult local Building Code to determine if a polyethylene sheet material is required or if foam board with taped joints can function as the vapour retarder.

Sealing the Owens Corning® foam boards per the manufacturer's guidelines can provide a radon barrier below the concrete slab.

3. POURING CONCRETE. Pour concrete over the panels to desired thickness.

JOINTSEALR® FOAM JOINT TAPE

Owens Corning® JointSealR® Foam Joint Tape is an effective product to tape the joints of FOAMULAR® NGX™ extruded polystyrene (XPS) board in vertical wall applications when it is used as continuous insulation over steel or wood wall framing, or as masonry cavity wall insulation.

BENEFITS:

- Thin and flexible to seal around penetrations and uneven surfaces
- Aggressive adhesive; long-term adhesion, strength and handle-ability
- Low application temperatures (-18 °C /0 °F)
- Remains flexible and elastomeric allowing it to move with building components
- Compatible with XPS rigid insulation
- Water and air resistive barrier material
- Sealing option as part of the FOAMULAR® CodeBord® Air Barrier System

ROLL DIMENSIONS

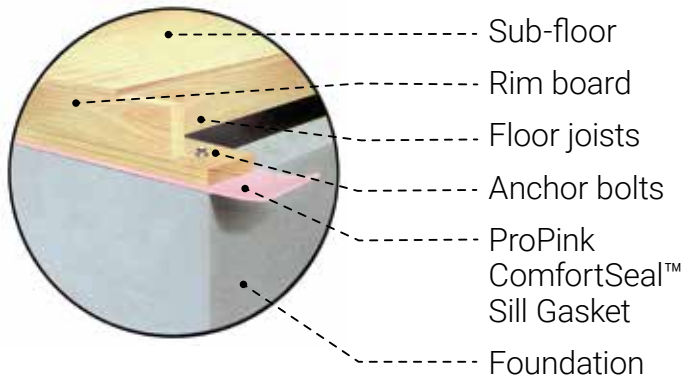
THICKNESS (MILS)	WIDTH	LENGTH
9.9 (.25mm)	3.5" (89mm)	90' (27.4 m)

PROPINK COMFORTSEAL™ SILL GASKET

TOP OF FOUNDATION WALL

BENEFITS:

- Fills gap between sill plate and foundation wall
- Made in Canada and easy to install
- Helps reduce air leakage in your home
- Polyethylene foam is durable and moisture-resistant



CALCULATE YOUR NEEDS

Measure the perimeter of your foundation wall. Divide the total perimeter in feet by 82 ft./roll to obtain the total number of rolls required.

GREENGUARD GOLD
PRODUCT certified FOR LOW CHEMICAL EMISSIONS
UL.COM/GG
UL 2818

Environmental Claims VALIDATION by SCS GLOBAL SERVICES

CERTIFIED RECYCLED CONTENT by SCS GLOBAL SERVICES
AVERAGE 20% RECYCLED CONTENT
PRE-CONSUMER

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