



# FOAMULAR® & FOAMULAR® NGX® 400/600/1000 TAPERED

## EXTRUDED POLYSTYRENE (XPS) TAPERED INSULATION

Owens Corning® FOAMULAR® & FOAMULAR® NGX® 400/600/1000 Extruded Polystyrene (XPS) Tapered Insulation products provide performance and value in low slope roofing systems and are designed to be used over structural roof decks. In PRMA roofs assemblies, the tapered insulation provides a thermally efficient, moisture-resistant positive drainage slope.

International Building Code (IBC) requires a minimum slope of ¼" per foot to roof drains, scuppers or gutters to prevent ponding water and infiltration.<sup>1</sup> Other standard slopes, such as ⅝" per foot and ½" per foot, are also available to manage water drainage and design flexibility.

Owens Corning provides tapered roofing estimating services with detailed tapered layouts to describe quantities and installation sequence. Contact your commercial area sales representative to request tapered roofing services, or email [GETTECH@owenscorning.com](mailto:GETTECH@owenscorning.com) or call 1-800-GET-PINK®.

FOAMULAR® NGX® 400/600/1000 Tapered contains the additional benefit of being manufactured with a blowing agent formulation that delivers a 90% reduction to Global Warming Potential (100 years), including the complete elimination of HFC 134a.<sup>2</sup>

<sup>1</sup> See Section 1503.4 Roof Drainage of International Building Code (IBC) 2015, which references Section 1503 as well as Sections 1108 & 1106 and International Plumbing Code (IPC).

<sup>2</sup> Compared to FOAMULAR® 400/600/1000 Tapered blowing agent formulation.

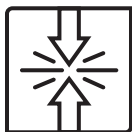
### Features



**SUPERIOR  
MOISTURE  
RESISTANCE**



**DURABLE**



**COMPRESSIVE  
STRENGTH**

### Standards, Codes Compliance

- Meets ASTM C578 Type VI (FOAMULAR® & FOAMULAR® NGX® 400 Insulation), Type VII (FOAMULAR® & FOAMULAR® NGX® 600 Insulation), and Type V (FOAMULAR® & FOAMULAR® NGX® 1000)
- UL Classified. A copy of UL Classification Certificate U-197 is available at [www.owenscorning.com](http://www.owenscorning.com)
- See UL ER8811-01 at UL.com
- FM (Factory Mutual) Class 1 Roof Decks
- ASTM E108 Fire Classified Assemblies
- ASTM E119 Fire Resistance Rated Roof/Ceiling Assemblies
- UL and FM Wind Uplift Rated Assemblies
- Meets California Quality Standards and HUD UM #71A

Note: Refer to [www.ul.com](http://www.ul.com) "Certifications" or FM Approval RoofNav for details on listings, constructions and assemblies.

### Physical Properties

DISTANCE FROM DRAIN	0'-4'	0'-8'	0'-12'	0'-16'	0'-20'
<b>Average R-value<sup>3</sup></b>					
⅛" slope	3.75	5.00	6.25	7.50	8.75
¼" slope	5.00	7.50	10.00	12.50	15.00
½" slope	7.50	12.50	17.50	22.50	27.50

<sup>3</sup> Average R-value @ 75°F (24°C) mean temperature

A combination of base, flat fillers and tapered pieces may be used for a particular project. For more information regarding product sizes and physical properties, please see Owens Corning publications, "FOAMULAR® & FOAMULAR® NGX® THERMAPINK® 25 Product Data Sheet" and "FOAMULAR® & FOAMULAR® NGX® 400/600/1000 Product Data Sheet". For higher compressive strength tapered insulation options, please contact [GETTECH@owenscorning.com](mailto:GETTECH@owenscorning.com).

Technical Information

- The roof designer must specify the number and location of roof drains as well as the minimum roof slope required for projects using Owens Corning FOAMULAR® or FOAMULAR® NGX® 400/600/1000 Tapered Roof Insulation.
- FOAMULAR® & FOAMULAR® NGX® XPS insulation are non-structural materials and must be installed on framing that is independently braced and structurally adequate to meet required construction and service loading conditions.
- FOAMULAR® & FOAMULAR® NGX® XPS insulation can be exposed to the exterior during normal construction cycles. During that time, some fading of color may begin due to UV exposure, and, if exposed for extended periods of time, some degradation or “dusting” of the polystyrene surface may begin. Once covered, the deterioration stops, and damage is limited to the thin top surface layers of cells. Cells below are generally unharmed and still useful insulation.
- FOAMULAR® & FOAMULAR® NGX® XPS insulation have a maximum service temperature of 165°F. Taking simple precautions during construction can minimize the potential for heat-related damage. Install only as much FOAMULAR® & FOAMULAR® NGX® XPS insulation as can be covered in the same day.
- For horizontal applications, turn print side down when possible so the black print does not show to the sun, which may at times act as a solar collector, raising the temperature of the foam under the print to an unacceptable level. Provide a final finish covering or temporary white opaque covering to avoid possible damage when dark (non-white) surfaces are used over FOAMULAR® & FOAMULAR® NGX® insulation.
- Do not cover FOAMULAR® or FOAMULAR® NGX® XPS insulation, either stored (factory wrapped or unwrapped) or partially installed, with dark colored (non-white) or clear (non-opaque) coverings and leave it exposed to the sun. If improperly covered, and exposed to the right combination of sun, time and temperature, FOAMULAR® & FOAMULAR® NGX® insulation deformation damage may occur rapidly. See “FOAMULAR® Extruded Polystyrene (XPS) Insulation Heat Build-up Due to Solar Exposure Technical Bulletin” for more information.
- This product is combustible. A protective barrier or thermal barrier is required as specified in the appropriate building code.
- All construction should be evaluated for the necessity to provide vapor retarders. See current “ASHRAE Handbook of Fundamentals.”

Product and Packaging Data

MATERIAL			PACKAGING				
Extruded polystyrene closed-cell foam, ASTM C578 Type IV (25 psi minimum), VI (40 psi minimum) & VI (60 psi minimum)			Shipped in poly-wrapped units with individually wrapped or banded bundles.				
THICKNESS (IN) <sup>5</sup>	PRODUCT DIMENSIONS THICKNESS (IN) X WIDTH (IN) X LENGTH (IN)	PALLET (UNIT) DIMENSIONS (TYPICAL) WIDTH (FT) X LENGTH (FT) X HEIGHT (FT)	SQUARE FEET PER PALLET	BOARD FEET PER PALLET	BUNDLES PER PALLET <sup>6</sup>	PIECES PER BUNDLE <sup>6</sup>	PIECES PER PALLET <sup>6</sup>
⅛" slope A	0.5-0.75 x 24 x 96	4 x 8 x 8	4,608	2,880	24	12	288
⅛" slope B	0.75-1 x 24 x 96	4 x 8 x 8	3,456	3,024	18	12	216
⅛" slope C	1-1.25 x 24 x 96	4 x 8 x 8	2,688	3,024	14	12	168
⅛" slope D	1.25-1.5 x 24 x 96	4 x 8 x 8	2,304	3,168	12	12	144
¼" slope E	0.5-1 x 24 x 96	4 x 8 x 8	3,840	2,880	10	12	240
¼" slope F	1-1.5 x 24 x 96	4 x 8 x 8	2,304	2,880	12	12	144
½" slope G	0.5-1.5 x 24 x 96	4 x 8 x 8	2,688	2,688	14	12	168

5 Other sizes may be available upon request. Consult your local Owens Corning representative for availability.  
6 Tapered panels available for order in 2pc increments.

Made-To-Order Product Availability

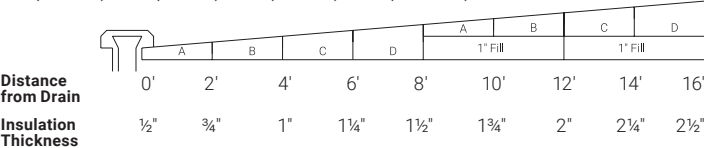
Owens Corning FOAMULAR® & FOAMULAR® NGX® XPS insulation comes in a variety of configurations to assist in providing drainage, managing water, and creating desired surfaces in traditional single-ply and PRMA roofs. Tapered products are combined with flat and channeled products to create optimal assembly for height, moisture and thermal performance.

PANEL	FOAMULAR® & FOAMULAR® NGX® 400 TAPERED INSULATION <sup>7</sup>	FOAMULAR® & FOAMULAR® NGX® 600 TAPERED INSULATION <sup>8</sup>	FOAMULAR® & FOAMULAR® NGX® 1000 TAPERED INSULATION <sup>9</sup>
⅛" slope A	X	X	X
⅛" slope B	X	X	X
⅛" slope C	X	X	X
⅛" slope D	X	X	X
¼" slope E	X	X	X
¼" slope F	X	X	X
½" slope G	X	X	X

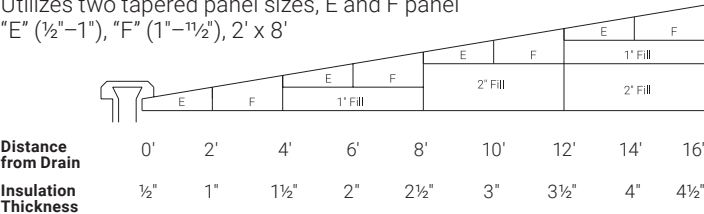
Note: Most tapered products are made to order requiring minimum order quantities and additional lead times. Consult your Owens Corning sales representative for additional information and for sizing availability of fill and base layer boards.  
7 Base or Cover material in this product is available in 1", 2", 3", and 4" thicknesses only. When provided as part of the tapered insulation package, flat boards will be 24" wide. See corresponding "FOAMULAR® & FOAMULAR® NGX® 400/600/1000 Product Data Sheet" for more information.  
8 Base or Cover material in this product is available in 1", 1½", 2", and 3" thicknesses only. When provided as part of the tapered insulation package, flat boards will be 24" wide. See Corresponding "FOAMULAR® & FOAMULAR® NGX® 400/600/1000 Product Data Sheet" for more information.  
9 Base or Cover material in this product is available in 1½", 2", and 3" thicknesses only. When provided as part of the tapered insulation package, flat boards will be 24" wide. See Corresponding "FOAMULAR® & FOAMULAR® NGX® 400/600/1000 Product Data Sheet" for more information.

Typical Tapered Roofing Sections

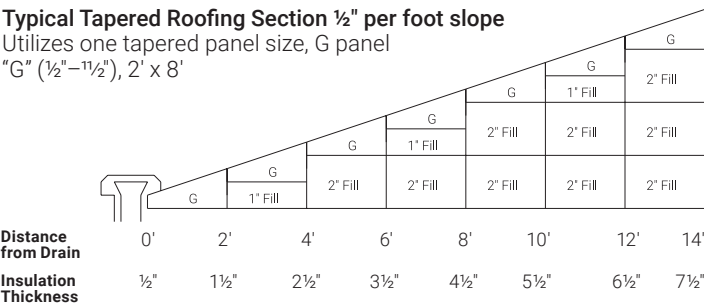
**Typical Tapered Roofing Section 1/8" per foot slope**  
Utilizes four tapered panel sizes, A, B, C and D panel  
"A" (1/2"-3/4"), "B" (3/4"-1"), "C" (1"-1 1/4"), "D" (1 1/4"-1 1/2"), 2' x 8'



**Typical Tapered Roofing Section 1/4" per foot slope**  
Utilizes two tapered panel sizes, E and F panel  
"E" (1/2"-1"), "F" (1"-1 1/2"), 2' x 8'



**Typical Tapered Roofing Section 1/2" per foot slope**  
Utilizes one tapered panel size, G panel  
"G" (1 1/2"-1 1/2"), 2' x 8'



Dimensions are not to scale.

Limited Warranty

FOAMULAR® & FOAMULAR® NGX® XPS insulation limited lifetime warranty maintains 90% of its R-value for the lifetime of the building and covers all ASTM C578 properties. See "FOAMULAR® Extruded Polystyrene Insulation Lifetime Limited Warranty" for complete details, limitations and requirements.

Certifications and Sustainable Features

- FOAMULAR® & FOAMULAR® NGX® XPS insulation is reusable.
- FOAMULAR® & FOAMULAR® NGX® XPS insulation is made with a zero ozone depletion formula.
- Certified by SCS Global Services to contain pre-consumer recycled content.
- Certified to meet indoor air quality standards under the stringent GREENGUARD Certification Program and GREENGUARD Gold.
- Utilizing FOAMULAR® & FOAMULAR® NGX® XPS insulation can help achieve green building certifications, including the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED®) certification.



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MATTERS**  
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Environmental and Sustainability

Owens Corning is a worldwide leader in building material systems, insulation, and composite solutions, delivering a broad range of high-quality products and services. Owens Corning is committed to driving sustainability by delivering solutions, transforming markets, and enhancing lives. More information can be found at [www.owenscorning.com](http://www.owenscorning.com).

FOAMULAR® and FOAMULAR® NGX® XPS insulation use blowing agents with zero ozone depletion potential. Detailed environmental information on the lifecycle of this product can be found in product's Environmental Product Declaration:

- "FOAMULAR® XPS Insulation Environmental Product Declaration"
- "FOAMULAR® NGX® XPS Insulation Environmental Product Declaration"

Disclaimer of Liability

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Notes

For additional information, refer to the Safe Use Instruction Sheet (SUIS) found in the SDS Database via <http://sds.owenscorning.com>.

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