

HPD UNIQUE IDENTIFIER: 23212

CLASSIFICATION: 07 00 00 Thermal and Moisture Protection

PRODUCT DESCRIPTION: Owens Corning Foamular® NGX (Next Generation Extruded), our new extruded polystyrene (XPS) product line produced with a foam blowing agent solution specifically designed to meet and exceed the requirements of upcoming regulatory changes in the U.S. and Canada. FOAMULAR® NGX™ is manufactured with a blowing agent formulation that delivers a 90% reduction to Global Warming Potential (100 year), including the complete elimination of HFC 134a while retaining the same R per inch and physical properties of existing Foamular XPS products.

Section 1: Summary

Basic Method / Product Threshold

CONTENT INVENTORY

<b>Inventory Reporting Format</b> <input type="radio"/> Nested Materials Method <input checked="" type="radio"/> Basic Method	<b>Threshold level</b> <input checked="" type="radio"/> 100 ppm <input type="radio"/> 1,000 ppm <input type="radio"/> Per GHS SDS <input type="radio"/> Other	<b>Residuals/Impurities</b> <input checked="" type="radio"/> Considered <input type="radio"/> Partially Considered <input type="radio"/> Not Considered	<i>All Substances Above the Threshold Indicated Are:</i>  <b>Characterized</b> <input type="radio"/> Yes Ex/SC <input checked="" type="radio"/> Yes <input type="radio"/> No <i>% weight and role provided for all substances.</i>
<b>Threshold Disclosed Per</b> <input type="radio"/> Material <input checked="" type="radio"/> Product	<b>Explanation(s) provided for Residuals/Impurities?</b> <input checked="" type="radio"/> Yes <input type="radio"/> No	<b>Screened</b> <input type="radio"/> Yes Ex/SC <input checked="" type="radio"/> Yes <input type="radio"/> No <i>All substances screened using Priority Hazard Lists with results disclosed.</i>	<b>Identified</b> <input type="radio"/> Yes Ex/SC <input type="radio"/> Yes <input checked="" type="radio"/> No <i>One or more substances not disclosed by Name (Specific or Generic) and Identifier and/ or one or more Special Condition did not follow guidance.</i>

CONTENT IN DESCENDING ORDER OF QUANTITY

Summary of product contents and results from screening individual chemical substances against HPD Priority Hazard Lists and the GreenScreen for Safer Chemicals®. The HPD does not assess whether using or handling this product will expose individuals to its chemical substances or any health risk. Refer to Section 2 for further details.

**MATERIAL | SUBSTANCE | RESIDUAL OR IMPURITY GREENSCREEN SCORE | HAZARD TYPE**

**FOAMULAR NGX EXTRUDED POLYSTYRENE INSULATION [ POLYSTYRENE LT-UNK POLYSTYRENE LT-UNK 1,1-DIFLUOROETHANE LT-UNK | GLO 2-BUTENE, 1,1,1,4,4,4-HEXAFLUORO-, (2Z)- NoGS GRAPHITE LT-UNK UNDISCLOSED LT-UNK BENZENE, ETHENYL-, POLYMER WITH 1,3- BUTADIENE, BROMINATED LT-1 | PBT ]**

Number of Greenscreen BM-4/BM3 contents ... 0

Contents highest concern GreenScreen Benchmark or List translator Score ... LT-1  
 Nanomaterial ... No

INVENTORY AND SCREENING NOTES:

Substances representing 100% of the product weight meet the 100 ppm Threshold and are Screened.

VOLATILE ORGANIC COMPOUND (VOC) CONTENT

VOC Content data is not applicable for this product category.

CERTIFICATIONS AND COMPLIANCE See Section 3 for additional listings.

VOC emissions: UL/GreenGuard Gold Certified  
 Other: Made with Renewable Electricity  
 Recycled content: SCS Recycled Content Certification - Recycling Programs  
 Multi-attribute: Environmental Product Declaration (EPD) by UL

CONSISTENCY WITH OTHER PROGRAMS

Pre-checked for LEED v4 Material Ingredients Option 1

Third Party Verified? <input type="radio"/> Yes <input checked="" type="radio"/> No	PREPARER: Self-Prepared VERIFIER: VERIFICATION #:	SCREENING DATE: 2020-11-13 PUBLISHED DATE: 2020-12-17 EXPIRY DATE: 2023-11-13
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## Section 2: Content in Descending Order of Quantity

This section lists contents in a product based on specific threshold(s) and reports detailed health information including hazards. This HPD uses the inventory method indicated above, which is one of three possible methods:

- Basic Inventory method with Product-level threshold.
- Nested Material Inventory method with Product-level threshold
- Nested Material Inventory method with individual Material-level thresholds

Definitions and requirements for the three inventory methods and requirements for each data field can be found in the HPD Open Standard version 2.2, available on the HPDC website at: [www.hpd-collaborative.org/hpd-2-2-standard](http://www.hpd-collaborative.org/hpd-2-2-standard)

### FOAMULAR NGX EXTRUDED POLYSTYRENE INSULATION

PRODUCT THRESHOLD: 100 ppm

RESIDUALS AND IMPURITIES CONSIDERED: Yes

RESIDUALS AND IMPURITIES NOTES: To the best of our knowledge, all residuals and impurities are considered.

OTHER PRODUCT NOTES: FOAMULAR NGX Extruded Polystyrene (XPS) Rigid Foam Insulation is offered in variety of thickness and densities. The wide range of substances have been reported to represent all product thickness and densities. This Health Product Declaration covers most of the FOAMULAR NGX product names using the next generation blowing agent blend.

#### POLYSTYRENE

ID: 9003-53-6

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library HAZARD SCREENING DATE: 2020-11-13

#: 65.0000 - 75.0000 GS: LT-UNK RC: PreC NANO: No SUBSTANCE ROLE: Polymer species

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
None found		No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: Resin used in making the Foamular Board.

#### POLYSTYRENE

ID: 9003-53-6

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library HAZARD SCREENING DATE: 2020-11-13

#: 20.0000 - 30.0000 GS: LT-UNK RC: PreC NANO: No SUBSTANCE ROLE: Polymer species

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
None found		No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: This portion of the resin is 100% pre -consumer recycled polystyrene.

#### 1,1-DIFLUOROETHANE

ID: 75-37-6

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library HAZARD SCREENING DATE: 2020-11-13

#: 2.0000 - 10.0000 GS: LT-UNK RC: None NANO: No SUBSTANCE ROLE: Blowing agent

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
GLOBAL WARMING	US EPA - Global Warming Potentials	Global Warming Potential greater than 100
GLOBAL WARMING	IPCC - Global Warming Chemicals	Chemicals with Global Warming Potential

SUBSTANCE NOTES: This blowing agent has a low global warming potential compared to other commercially available hydrofluorocarbons.

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library HAZARD SCREENING DATE: 2020-11-13

%: 1.0000 - 5.0000 GS: NoGS RC: None NANO: No SUBSTANCE ROLE: Blowing agent

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
None found		No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: The blowing agent is a hydrofluoroolefin with very low global warming potential.

**GRAPHITE**

ID: 7782-42-5

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library HAZARD SCREENING DATE: 2020-11-13

%: 0.1000 - 2.0000 GS: LT-UNK RC: None NANO: No SUBSTANCE ROLE: Nucleating agent

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
None found		No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: An Additive to improve some of the product properties.

**UNDISCLOSED**

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library HAZARD SCREENING DATE: 2020-11-13

%: 0.1000 - 4.0000 GS: LT-UNK RC: None NANO: No SUBSTANCE ROLE: Binder

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
None found		No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: This resin is the carrier for an additive.

**BENZENE, ETHENYL-, POLYMER WITH 1,3- BUTADIENE, BROMINATED**

ID: 1195978-93-8

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library HAZARD SCREENING DATE: 2020-11-13

%: 0.1000 - 2.0000 GS: LT-1 RC: None NANO: No SUBSTANCE ROLE: Flame retardant

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
PBT	OSPAR - Priority PBTs & EDs & equivalent concern	PBT - Chemical for Priority Action
PBT	EHP - San Antonio Statement on BFRs & CFRs	Flame retardant substance class of concern for PB&T & long range transport

SUBSTANCE NOTES: The flame retardant used in our Foamular NGX XPS product is a polymeric halogenated flame retardant (Non-HBCD) and it is not on LBC v4.0 Red List chemicals. This material was reviewed by the U.S. EPA and found to be among the best choices for replacing HBCD in polystyrene insulation.

## Section 3: Certifications and Compliance

This section lists applicable certification and standards compliance information for VOC emissions and VOC content. Other types of health or environmental performance testing or certifications completed for the product may be provided.

VOC EMISSIONS	UL/GreenGuard Gold Certified		
CERTIFYING PARTY: Third Party APPLICABLE FACILITIES: Tallmadge, OH, USA; Gresham, OR, USA; Valleyfield, QC, CAN initially CERTIFICATE URL: <a href="https://spot.ul.com/">https://spot.ul.com/</a>	ISSUE DATE: 2006-02-17	EXPIRY DATE:	CERTIFIER OR LAB: UL Environment
CERTIFICATION AND COMPLIANCE NOTES: The GREENGUARD Gold Certification standard includes health based criteria for additional chemicals and also requires lower total VOC emissions levels to ensure that products are acceptable for use in environments such as schools and healthcare facilities. GREENGUARD Gold certification standard meets the requirements for California Department of Public Health's CDPH Standard. Foamular also has GREENGUARD Certification, but most specifiers look for GG Gold.			

OTHER	Made with Renewable Electricity		
CERTIFYING PARTY: Third Party APPLICABLE FACILITIES: Gresham, OR; Valleyfield, Canada; and Tallmadge, OH initially. CERTIFICATE URL: <a href="https://www.scsglobalservices.com/certified-green-products-guide">https://www.scsglobalservices.com/certified-green-products-guide</a>	ISSUE DATE: 2020-12-18	EXPIRY DATE:	CERTIFIER OR LAB: SCS Global Services
CERTIFICATION AND COMPLIANCE NOTES: Foamular NGX is made with renewable electricity. This reduces the carbon footprint of Foamular NGX products. See the SCS Global Services Certificate for details. The use of renewable electricity is also discussed in the LCA for Foamular NGX.			

RECYCLED CONTENT	SCS Recycled Content Certification - Recycling Programs		
CERTIFYING PARTY: Third Party APPLICABLE FACILITIES: Tallmadge, OH, USA; Gresham, OR, USA; Valleyfield, QC, CAN plants initially CERTIFICATE URL: <a href="https://www.scs-certified.com">https://www.scs-certified.com</a>	ISSUE DATE: 2020-04-01	EXPIRY DATE:	CERTIFIER OR LAB: SCS Global
CERTIFICATION AND COMPLIANCE NOTES: Registration # SCS-MC-01132			

MULTI-ATTRIBUTE	Environmental Product Declaration (EPD) by UL		
CERTIFYING PARTY: Third Party APPLICABLE FACILITIES: Tallmadge, OH, USA; Gresham, OR, USA; Valleyfield, QC, CAN plants initially CERTIFICATE URL: <a href="https://spot.ul.com">https://spot.ul.com</a>	ISSUE DATE: 2021-01-01	EXPIRY DATE: 2026-01-01	CERTIFIER OR LAB: UL Environment
CERTIFICATION AND COMPLIANCE NOTES: EPD has been published on SPOT, along with an Optimization Summary and Addendum.			

## Section 4: Accessories

This section lists related products or materials that the manufacturer requires or recommends for installation (such as adhesives or fasteners), maintenance, cleaning, or operations. For information relating to the contents of these related products, refer to their applicable Health Product Declarations, if available.

No accessories are required for this product.

## Section 5: General Notes

Pharos Chemical and Materials Library (through HPD Builder) was used to screen all chemicals used in making the product. FOAMULAR® NGX™ is manufactured with a blowing agent formulation that delivers a 90% reduction to Global Warming Potential (100 year time horizon) compared to FOAMULAR® blowing agent formulation. This includes the complete elimination of HFC 134a.

**MANUFACTURER INFORMATION**

**MANUFACTURER:** Owens Corning  
**ADDRESS:** One Owens Corning Parkway  
 Toledo Ohio 43659, United States  
**WEBSITE:** www.owenscorning.com

**CONTACT NAME:** Stan Wolfersberger  
**TITLE:** Sustainability Leader  
**PHONE:** 7403218069  
**EMAIL:** stan.wolfersberger@owenscorning.com

*The listed contact is responsible for the validity of this HPD and attests that it is accurate and complete to the best of his or her knowledge.*

**KEY**

**Hazard Types**

<b>AQU</b> Aquatic toxicity	<b>LAN</b> Land toxicity	<b>PHY</b> Physical hazard (flammable or reactive)
<b>CAN</b> Cancer	<b>MAM</b> Mammalian/systemic/organ toxicity	<b>REP</b> Reproductive
<b>DEV</b> Developmental toxicity	<b>MUL</b> Multiple	<b>RES</b> Respiratory sensitization
<b>END</b> Endocrine activity	<b>NEU</b> Neurotoxicity	<b>SKI</b> Skin sensitization/irritation/corrosivity
<b>EYE</b> Eye irritation/corrosivity	<b>NF</b> Not found on Priority Hazard Lists	<b>UNK</b> Unknown
<b>GEN</b> Gene mutation	<b>OZO</b> Ozone depletion	
<b>GLO</b> Global warming	<b>PBT</b> Persistent, bioaccumulative, and toxic	

**GreenScreen (GS)**

<b>BM-4</b> Benchmark 4 (prefer-safer chemical)	<b>LT-1</b> List Translator 1 (Likely Benchmark-1)
<b>BM-3</b> Benchmark 3 (use but still opportunity for improvement)	<b>LT-UNK</b> List Translator Benchmark Unknown (the chemical is present on at least one GreenScreen Specified List, but the information contained within the list did not result in a clear mapping to a LT-1 or LTP1 score.)
<b>BM-2</b> Benchmark 2 (use but search for safer substitutes)	
<b>BM-1</b> Benchmark 1 (avoid - chemical of high concern)	
<b>BM-U</b> Benchmark Unspecified (due to insufficient data)	
<b>LT-P1</b> List Translator Possible 1 (Possible Benchmark-1)	<b>NoGS</b> No GreenScreen.

**Recycled Types**

**PreC** Pre-consumer recycled content  
**PostC** Post-consumer recycled content  
**UNK** Inclusion of recycled content is unknown  
**None** Does not include recycled content

**Other Terms:**

**GHS SDS** Globally Harmonized System of Classification and Labeling of Chemicals Safety Data Sheet

**Inventory Methods:**

**Nested Method / Material Threshold** Substances listed within each material per threshold indicated per material  
**Nested Method / Product Threshold** Substances listed within each material per threshold indicated per product  
**Basic Method / Product Threshold** Substances listed individually per threshold indicated per product

**Nano** Composed of nano scale particles or nanotechnology  
**Third Party Verified** Verification by independent certifier approved by HPDC  
**Preparer** Third party preparer, if not self-prepared by manufacturer  
**Applicable facilities** Manufacturing sites to which testing applies

*The Health Product Declaration (HPD) Open Standard provides for the disclosure of product contents and potential associated human and environmental health hazards. Hazard associations are based on the HPD Priority Hazard Lists, the GreenScreen List Translator™, and when available, full GreenScreen® assessments. The HPD Open Standard v2.1 is not:*

- a method for the assessment of exposure or risk associated with product handling or use,
- a method for assessing potential health impacts of: (i) substances used or created during the manufacturing process or (ii) substances created after the product is delivered for end use.

*Information about life cycle, exposure and/or risk assessments performed on the product may be reported by the manufacturer in appropriate Notes sections, and/or, where applicable, in the Certifications section.*

*The HPD Open Standard was created and is supported by the Health Product Declaration Collaborative (the HPD Collaborative), a customer-led organization composed of stakeholders throughout the building industry that is committed to the continuous improvement of building products through transparency, openness, and innovation throughout the product supply chain.*

*The product manufacturer and any applicable independent verifier are solely responsible for the accuracy of statements and claims made in this HPD and for compliance with the HPD standard noted.*