

# HALO INTERRA FR MATERIAL PROPERTY DATA SHEET

102819

## PRODUCT NAME

Halo Interra FR rigid foam insulation.

## MANUFACTURERS

- Beaver Plastics Ltd.  
7-26318-TWP RD 531A  
Acheson, Alberta, T7X 5A3  
888-453-5961
- AMC Foam Technologies Inc.  
35 Headingley St.  
Headingley Manitoba, R4H 0A8  
877-789-7622
- Form Solutions  
P.O. Box 358  
Port Hope, ON, L1A 3W3  
888-706-7709
- Progressive Foam Technologies  
1 Southern Gateway Dr.  
Gnadenhutten, OH, 44629  
800-860-3626
- Form Systems Inc.  
330 Cain Drive  
Haysville, KS, USA 67060-2004  
1-888-838-5038
- Perma R Products Inc.  
2604 Sunset Dr.  
Grenada, MS, 38901  
800-647-6130
- Perma R Products Inc.  
106 Perma R Rd.  
Johnson City, TN, 37604  
800-647-6130

## PRODUCT DESCRIPTION

Rigid foam sheathing insulation made from BASF Neopor® 5200 Plus GPS (graphite infused expanded polystyrene), which offers up to 18% more R-value than conventional EPS.

Coated with a reflective laminate on both sides of the rigid insulation.

Acts as a vapor barrier while providing continuous insulation. In addition, when a sealed air gap between the reflective laminate surface and covering is provided an additional boost in R-value is provided.

## BASIC USE

Designed to completely seal and insulate above- and below-grade walls in residential, multi-residential, commercial, and industrial buildings.

- Interior insulation for attics and foundation walls including crawls spaces.

## CODE & STANDARDS

- ASTM C578 – Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation.
- ASTM C518 – Standard Test Method for Steady-state Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus.
- ASTM D1621 – Standard Test Method for Compressive Properties of Rigid Cellular Plastics.
- ASTM D1622 – Standard Test Method for Apparent Density of Rigid Cellular Plastics.
- ASTM D2842 – Standard Test Method for Water Absorption of Rigid Cellular Plastics.
- ASTM E84 – Standard Test Method for Surface Burning Characteristics of Building Materials.
- ASTM E96 – Standard Test Methods for Water Vapor Transmission of Materials.
- ASTM C203 – Standard Test Methods for Breaking Load and Flexural Properties of Block-Type Thermal Insulation.
- ASTM C303 – Standard Test Method for Dimensions and Density of Preformed Block and Board-Type Thermal Insulation.
- ASTM D2863 – Standard Test Method for Measuring the Minimum Oxygen Concentration to Support Candle-Like Combustion of Plastics (Oxygen Index).
- ASTM E331 - Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference
- AC 71 Acceptance Criteria For Foam Plastic Sheathing Panels Used As Water-Resistive Barriers
- CAN/ULC-S701 – Standard for Thermal Insulation, Polystyrene, Boards and Pipe Covering.
- CAN/ULC S102.2 - Surface Burning Characteristics of Flooring, Floor Covering and Miscellaneous Materials and Assemblies.
- NFPA 286 “Standard Methods of Fire Tests for Evaluating Contribution of Wall and Ceiling Interior Finish to Room Fire Growth.”
- International Residential Code 2015 (IRC 2015)
- International Building Code 2015 (IBC 2015)

## CODE EVALUATION APPROVALS

- UL ER5817-02

## PHYSICAL PROPERTIES

Conforms to the physical properties shown in Tables 1, 2, and 3.

## ENVIRONMENTAL DATA

Produced without the use of chlorofluorocarbon (CFCs), hydrochlorofluorocarbon (HCFCs) or formaldehyde. As a result, Halo Interra FR will not produce harmful emissions to the environment.

BASF Neopor 5200 Plus is recognized as a product that produces low chemical emissions by the Greenguard Environment Institute – Neopor 5200 Plus is Greenguard Indoor Air Quality Certified® and Greenguard Children & Schools<sup>SM</sup> Certified product.

## INSTALLATION FOR FOUNDATION INTERIOR INSULATION

Halo Interra FR must be placed directly against the concrete or masonry foundation wall. Prep the wall by removing any protrusions that could damage or prevent Halo Interra FR from being placed flush against the wall. And ensure the wall is dry and free of dirt and debris.

Use weather resistant construction glue compatible with expanded polystyrene, such as PL300, to secure Halo Interra FR to the wall. If the wall is too rough or uneven concrete screws with washers can be used along with adhesives.

For detailed instructions refer to the Halo Interra Installation Guide.

## USE WITHOUT A THERMAL BARRIER

May be installed on any wall surface as interior insulation without a thermal or ignition barrier applied over Halo Interra FR provided Type XI Halo Interra FR is installed at a maximum thickness of 2.28 inch. Based on testing to NFPA 286 in accordance with IBC 2015, Section 2603.9 and IRC 2015, Section 316.6.

## PRODUCT SIZES

Available in 4x8 sheets, 9/16", 5/8", 1", 1.5 and 2" thick. Custom sizes are available. Contact your local Halo representative for availability.

[www.BuildWithHalo.com](http://www.BuildWithHalo.com)

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## Table 1: Thermal Insulation<sup>1</sup>

Product	R-value @ 75°F (RSI @ 24°C) <sup>2</sup>
Halo Interra FR	4.9 (0.86)

1. In accordance with ASTM C578, "Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation", and CAN/ULC S701, "Standard For Thermal Insulation, Polystyrene, Boards and Pipe Covering", at 75°F (24°C), and at 40°F (4.4°C) from data provided by BASF.
2. At 1" nominal thickness (actual thickness = 1.06").

## Table 2: Material Properties

ASTM C578 <sup>1</sup>	Type XI
Compressive Resistance at 10% def., Min., psi (ASTM D1621)	5.0
Flexural Resistance Min., psi (ASTM C203)	10.0
Water Vapor Permeance Max., perms (ASTM E96)	5.0
Water Absorption Max., % (ASTM C272)	4.0
Dimensional Stability Max., % (ASTM D2126)	2
Oxygen Index Min., % (ASTM D2863)	24

1. Unless noted otherwise, properties are based on 1" thickness. Data provided by BASF.

## Table 3: Surface Burning Characteristics

	Flame Spread Index Max.	Smoke Developed Index Max.	Thickness Max.	Density Max.
ASTM E84/UL 723	5	25	6	2 pcf