

Product Name**CHROME GPS Rigid Insulation: Type I, II & III****Associated Specification Section**

MasterFormat 2004 # 07 21 13

MasterFormat 1995 # 07213

Manufacturer's Name

Beaver Plastics Ltd.

PRODUCT DESCRIPTION**PRODUCT FEATURES****● DESCRIPTION / BASIC USES**

- Closed cell Graphite Polystyrene (GPS) rigid board insulation.
- Below grade applications:
 - Perimeter insulation for grade beams and foundation walls.
 - Insulation under concrete slabs and in crawlspaces.
 - Frost protected shallow foundations.
 - Ice arenas and snow melt systems.
 - Landscaping and geotechnical applications
- Above grade applications:
 - Continuous insulation for wall construction assemblies.
 - Cavity wall and masonry construction assemblies.
 - Exterior Insulation Finish Systems (EIFS)
 - Roofing insulation, including sloped, flat, and tapered applications.
 - Coolers, freezers, and ice arenas.

● PRODUCT ATTRIBUTES AND CHARACTERISTICS

- R-Values equivalent to XPS.
- Excellent resistance to freeze/thaw cycles.
- Low moisture absorption.
- Contains no CFCs, HCFCs, or other refrigerant gases. Does not lose R-value over time.
- Biologically inert. Will not support mould, mildew or fungus growth.
- Contains a fire retardant additive to inhibit accidental ignition from a small fire source.
- Non-toxic and hypo-allergenic. Does not off-gas.
- The insulation value (R-Value) increases as temperature decreases.
- Can contribute to LEED Requirements for low-emitting materials (confirm with LEED requirement for Indoor Air Quality).

● SELECTION CRITERIA

- Suitable for both cold and hot climate applications.

● SUSTAINABILITY CRITERIA

- Manufactured in Acheson, AB and Chilliwack, BC, Canada.

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PRODUCT DESCRIPTION**● APPLICABLE STANDARDS, RELATED REFERENCES**

- ASTM C177 - Standard Test Method for Steady-State Heat Flux Measurements and Thermal Transmission Properties by Means of the Guarded-Hot-Plate Apparatus.
- ASTM C578 – Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation.
- ASTM D1621 - Standard Test Method for Compressive Properties of Rigid Cellular Plastics.
- ASTM D1623 - Standard Test Method for Tensile and Tensile Adhesion Properties of Rigid Cellular Plastics.
- ASTM C272 – Standard Test Method for Water Absorption of Core Materials for Structural Sandwich Constructions.
- 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.
- CAN/ULC-S701 – Standard for Thermal Insulation, Polystyrene, Boards and Pipe Covering.

● QUALITY STATEMENT, TESTS, CERTIFICATIONS, AND APPROVALS

- Performance tests certified by Intertek Testing Services Ltd.
- GREENGUARD Gold Certified for indoor air quality.

● PACKAGING, HANDLING, PROTECTION, AND DELIVERY INSTRUCTIONS

- Must be protected from damage during transit.
- Must be protected from UV degradation during storage and after erection.
- Do not expose to volatile hydrocarbons, such as fuel oils, gasoline, alcohols.

● LIMITATIONS

- Surface may degrade after lengthy exposure to direct or reflected ultra-violet rays.
- Excessive heat build up can damage insulation.
- Product will burn when exposed to large continuous flame.



January 1, 2020

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PRODUCT DESCRIPTION

● SAFETY PRECAUTIONS

- Normal fire precautions and good housekeeping methods must be followed during storage and application.

● AVAILABILITY

- Available direct from Beaver Plastics or appointed distributors

● COST

- Varies with substrate condition and configuration, and relative size of building.
- Consult manufacturer or distributors for specific product costs or budget pricing.

PRODUCT PROPERTIES

● THERMAL INSULATION VALUES AND TECHNICAL PROPERTIES

- Rigid, closed cell, expanded polystyrene (EPS), to CAN/ULC-S701, ASTM C578 & ASTM E84 for Type I, II & III.
- Flame Spread / Smoke Developed Index: Less than 5/25, to ASTM E84.

PHYSICAL PROPERTY	UNITS IMPERIAL R VALUE	UNITS SI (METRIC)	ASTM TEST PROCEDUR E	TERRAFOAM Chrome 1000 TYPE 1		TERRAFOAM Chrome 1600 TYPE 2		TERRAFOAM Chrome 2000 TYPE 3	
				Imperial	Metric	Imperial	Metric	Imperial	Metric
Minimum thermal Resistance (R-Value)	hr. ft ² °F BTU /1 in.	m ² °C W/25mm	C-177-93 @ 10°C (40°F)	5.0	0.88	5.0	0.88	5.0	0.88
			C-177-93 @ 24°C (75°F)	4.7	0.83	4.7	0.83	4.7	0.83
Compressive Strength	psi	kPa	D 1621-73	10	70	16	110	20.4	140
Capillary Action	----	----	----	none	none	none	none	none	none
Water vapor permeance (max)	perm - in	ng/Pa.s.m ²	E 96-80	5.25	300	3.5	200	2.25	130
Water absorption % (max)	%	%	ASTM C578 & ASTM E84	1.1	1.1	1.1	1.1	1.1	1.1

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PRODUCT DESCRIPTION

● ACCESSORIES

- Adhesives, insulation fasteners.

● DIMENSIONS

- Thickness: Any thickness from 12 mm to 1220 mm (1/2" – 48"), square edges are standard.
- Standard board sizes:
 - 610 x 2440 mm (2' x 8') panels.
 - 1220 x 2440 mm (4' x 8') panels.
- Profiles: Shiplap edges, drainage or furring slots and other custom profiles can be provided at nominal cost.

PRODUCT PLACEMENT

● INSTALLATION

- Install products in accordance with the manufacturer's instructions for each specific application.
- Cover exposed insulation with a finish acceptable to local building authorities.

● MAINTENANCE INSTRUCTIONS AND PROCEDURES

- Product incompatible with aromatic, aliphatic hydrocarbons, esters, amines, or anhydrous acids, which could cause degradation.

Corporate Identification

Beaver Plastics Ltd.
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Phone 1-780-962-4433 (International)
Toll free: 1-888-453-5961 (U.S. and Canada)
Fax 1-780-962-4640
Internet web site: <http://www.beaverplastics.com>
E-mail: techsupport@beaverplastics.com

Technical Services Available

Phone toll free, fax or e-mail (see above)



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PRODUCT DESCRIPTION

Classification and Filing

UniFormat 2010

- A2010 Walls for Subgrade Enclosures
- A2010.90 Subgrade Enclosure Wall Supplementary Components
- A4090.10 Perimeter Insulation
- B1010 Floor Construction
- B1010.90 Floor Construction Supplementary Components
- B1020 Roof Construction
- B1020.90 Roof Construction Supplementary Components
- B2010 Exterior Walls
- B2010.10 Exterior Wall Veneer
- B2010.20 Exterior Wall Construction
- B2010.40 Fabricated Exterior Wall Assemblies
- B2010.80 Exterior Wall Supplementary Components
- B3010 Roofing
- B3010.10 Steep Slope Roofing
- B3010.50 Low-Slope Roofing
- B3010.90 Roofing Supplementary Components
- B3040 Traffic Bearing Horizontal Enclosures
- B3040.30 Horizontal Waterproofing Membrane
- B3040.90 Horizontal Enclosure Supplementary Components
- B3080 Overhead Exterior Enclosures

OmniClass 2010 Table 23 - Products

- 23-13 25 19 Thermal Insulation
- 23-13 25 19 11 Slab and Board Thermal Insulation
- 23-13 25 19 11 11 Polystyrene Slab and Board Thermal Insulation
- 23-13 25 19 11 11 11 Expanded Polystyrene Slab and Board Thermal Insulation
- 23-13 39 31 Roof Membranes
- 23-35 20 21 11 Single Layer Roof Membranes
- 23-35 20 21 13 Multi Layer Roof Membranes
- 23-19 31 19 13 Insulated Rooms
- 23-19 31 19 13 11 Cold Storage Rooms

MasterFormat 2004:

- 07 21 13 – Board Insulation
- 07 21 13.13 – Foam Board Insulation
- 07 22 00 – Roof and Deck Insulation



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- 07 24 00 – Exterior Insulation and Finish Systems
- 07 50 00 – Membrane Roofing
- 07 51 00 – Built-Up Roofing
- 07 52 00 – Modified Bituminous Membrane Roofing
- 07 53 00 – Elastomeric Membrane Roofing
- 07 54 00 – Thermoplastic Membrane Roofing
- 07 55 00 – Protected Membrane Roofing
- 07 55 63 – Vegetated Protected Membrane Roofing

MasterFormat 1995:

07213 – Board Insulation

END