



Product Name
CHROME GPS 2500 and GPS 3000 Rigid Insulation

January 1, 2020

Associated Specification Section
MasterFormat 2004 # 07 21 13
MasterFormat 1995 # 07213

Manufacturer's Name
Beaver Plastics Ltd.

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PRODUCT DESCRIPTION

PRODUCT FEATURES

- **DESCRIPTION / BASIC USES**
 - Closed cell high compressive strength Graphite Expanded Polystyrene (GPS) rigid board insulation.
- **USES**
 - Below grade applications:
 - Perimeter insulation for grade beams and foundation walls.
 - Insulation under concrete slabs and crawlspaces.
 - Frost protected shallow foundations.
 - Ice arenas and snow melt systems.
 - Above grade applications:
 - Continuous insulation for wall construction assemblies
 - Roof insulation, including sloped, flat, and tapered applications.
 - Coolers, freezers, and ice arenas.
 - Masonry and other cavity wall construction assemblies.
- **PRODUCT ATTRIBUTES AND CHARACTERISTICS**
 - Excellent resistance to freeze/thaw cycles.
 - Low moisture absorption.
 - Contains no CFCs, HCFCs, or other refrigerant gases. Does not lose insulation value over time.
 - Biologically inert. Will not support mould, mildew or fungus growth. Not a food source for pests.
 - Contains a chemical 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.
- **SELECTION CRITERIA**
 - Suitable for cold climate applications, where soil is prone to heaving.
- **SUSTAINABILITY CRITERIA**
 - Manufactured near Acheson, AB and Chilliwack, BC, Canada.



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- Contains no CFC or HCFC gasses; does not contribute to ozone depletion or global warming (contains only air). Air is blowing agent.
- Non-toxic; does not irritate skin.
- **APPLICABLE STANDARDS, RELATED REFERENCES**
 - ASTM C272 – Standard Test Method for Water Absorption of Core Materials for Structural Sandwich Constructions.
 - ASTM C578 – Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation.
 - ASTM E96 - Standard Test Methods for Water Vapor Transmission of Materials. Transmission Properties by Means of the Guarded-Hot-Plate Apparatus.
 - ASTM E84 – Standard Test Method for Surface Burning Characteristics of Building Materials.
 - ASTM D1621 - Standard Test Method for Compressive Properties of Rigid Cellular Plastics.
 - ASTM D2842 - Standard Test Method for Water Absorption of Rigid Cellular Plastics.
 - CAN/ULC-S701 – Standard for Thermal Insulation, Polystyrene, Boards and Pipe Covering.
- **QUALITY STATEMENT, TESTS, CERTIFICATIONS, AND APPROVALS**
 - GREENGUARD Gold Certified for indoor air quality.
 - Performance tests certified by Intertek Testing Services Ltd.
- **PACKAGING, HANDLING, PROTECTION, AND DELIVERY INSTRUCTIONS**
 - Must be protected from damage during transit.
 - Must be covered or protected from exposure to UV during storage and after installation.
 - Do not expose to volatile hydrocarbons, such as fuel oils, gasoline, alcohols.
- **LIMITATIONS**
 - May degrade after lengthy exposure to ultra-violet rays.
 - Product will burn when exposed to large continuous flame.
 - Anhydrous acids (such as sulphuric and formic acid) may degrade product.
- **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



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PRODUCT DESCRIPTION

● **COST**

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

PRODUCT PROPERTIES

● **MATERIALS, COMPOSITION, PROPERTIES**

- Technical Properties
 - Rigid, closed cell, expanded polystyrene (EPS) board with integral radiant barrier, meets or exceeds ASTM C578, exceeds CAN/UL S701 TYPE III (similar to CAN/ULC S701 Type 4).

PHYSICAL PROPERTY	UNITS IMPERIAL R-VALUE	UNITS SI (METRIC)	ASTM TEST PROCEDURE	TERRAFOAM Chrome-2500 TYPE IX		TERRAFOAM Chrome-3000 TYPE IX	
				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
			C-177-93 @ 24°C (75°F)	4.7	0.83	4.7	0.83
Compressive Strength	psi	kPa	ASTM C578	25	170	30	210
Capillary Action	-----	-----	-----	none	none	none	none
Water vapor permeance (max)	perm - in	ng/Pa.s.m ²	E 96-80	2.25	130	2.25	130
Water absorption % (max)	%	%	D 2842-69	1.1	1.1	1.1	1.1
Dimensional Stability	% Linear Change	% Linear Change	ASTM 2126	1.5	1.5	1.5	1.5
Flexural Strength	Psi	kPa	ASTM C518	46	325	50	350



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PRODUCT DESCRIPTION

- **ACCESSORIES**

- Adhesives, insulation fasteners.

- **DIMENSIONS**

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

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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E-mail: techsupport@beaverplastics.com

Technical Services Available



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PRODUCT DESCRIPTION

Phone toll free or e-mail

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



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PRODUCT DESCRIPTION

07 21 13.13 – Foam Board Insulation
07 22 00 – Roof and Deck Insulation
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 OF SECTION