



Product Name

DYNAFLEX
Expanded Polystyrene Compressible Fill

May 1, 2019

Associated Specification Section

MasterFormat 2004 # 07 97 13
MasterFormat 1995 # 03116

Manufacturer's Name

Beaver Plastics Ltd.

PRODUCT DESCRIPTION

PRODUCT FEATURES

- DESCRIPTION
 - Expanded (EPS) polystyrene fill, with compressible properties to protect grade beams, structural slabs, pile caps and other concrete structural elements from the forces of swelling of clay soils or freezing of subgrade materials and subsequent uplift.
 - Available in three compressive resistant densities.
- USES
 - Geotechnical and other near grade applications:
 - Thermal and physical protection of structural foundation and perimeter materials.
 - Provides compressible insulation under building structural members or grade beams at or near grade for frost and expansive soils protection.
 - Closed cellular compressible foam accepts structural stresses without damage.
- PRODUCT ATTRIBUTES AND CHARACTERISTICS
 - Closed cell expanded polystyrene (EPS) providing all-weather performance.
 - Resistant to freeze/thaw cycles.
 - Low moisture absorption properties.
 - Protection achieved via compression before damage to structural components can occur.
 - Does not contain CFCs, HCFCs, or other refrigerant gases.
 - EPS is biologically inert and will not support mould, mildew or fungus growth.
 - Contains a chemical additive to inhibit accidental ignition from a small fire source.
 - Non-toxic and hypo-allergenic. Does not off-gas.
- SELECTION CRITERIA
 - Suitable for colder climate applications, where sub-soil is prone to frost heaving.
 - Available in several standard board sizes, in any thickness up to 1220 mm (48 inches).
 - Available in custom profiles to suit project component configuration.
- SUSTAINABILITY CRITERIA
 - Manufactured at Edmonton AB and Chilliwack BC, Canada



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- Contains no CFC or HCFC gasses; does not contribute to ozone depletion.
- Non-toxic; does not irritate skin on exposure.
- Biologically inert and will not support mould, mildew, fungus growth or pests.

- **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 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**
 - Manufactured in accordance with CAN/ULC S701.

- **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 with lengthy exposure to ultra-violet rays or direct sunlight.
 - Product will burn when exposed to large continuous flame.



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- 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 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 and custom profiled components.
 - Profiles: Beveled edges and other custom profiles can be produced.
 - Recommended Maximum Concrete Placing Loads:
 - DYNAFLEX High Density: 95 kPa (4.0 m concrete thickness).
 - DYNAFLEX Medium Density: 60 kPa (2.5 m concrete thickness).
 - DYNAFLEX Standard Density: 35 kPa (1.5 m concrete thickness).
- ACCESSORIES:
 - Adhesives and/or insulation fasteners.



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PRODUCT PROPERTIES

- DIMENSIONS
 - Thickness: Any thickness up to a maximum of 1220 mm (48 inches).
 - Minimum thickness of DYNAFLEX can be calculated utilizing engineering values and product limitation parameters. Refer to calculation guide lines offered by Beaver Plastics. Refer also to Beaver Plastic web site at: <http://www.beaverplastics.com/beavercurrent/dynaflex.html>
 - Profiles: Flat sheet and custom profiles to suit grade beam or pile cap shapes can be provided.

PRODUCT PLACEMENT

- PREPARATION
 - Provide a level grade before installing DYNAFLEX.
- INSTALLATION
 - Install products in accordance with the manufacturer's instructions for each specific application.
 - Subterra Protection Board or Plywood overlay may be used to distribute stresses from point loads.
- MAINTENANCE INSTRUCTIONS AND PROCEDURES
 - Product should not be exposed to volatile hydrocarbons which may attack the expanded polystyrene.

Corporate Identification

Beaver Plastics
11581 – 272 Street
Acheson, Alberta, Canada T7X 6E9
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 or e-mail (see above)



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Classification and Filing

OmniClass Table 23 – Products

OmniClass 2006:
23-10 10 11 35 - Expanded Polystyrene Compressible Fill

MasterFormat 2004:
07 97 13 – Compressible Board Fill (for at and below grade applications)

MasterFormat 1995:
03116 – Compressible Board Fill (for at and below grade applications)

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