

Product Name

DYNAVOID™

Associated Specification Section

MasterFormat 1995 # 03115

MasterFormat 2004 # 03 11 23

Manufacturer's Name

Beaver Plastics

Sept 30, 2004

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PRODUCT DESCRIPTION

PRODUCT FEATURES

- BASIC USES / RELATED USES
 - Expanded polystyrene (EPS) void form material designed to be used under structural slabs to prevent heaving caused by upward movement of the underlying ground.
- PRODUCT ATTRIBUTES AND CHARACTERISTICS
 - Conserves energy by serving as under-slab insulation.
 - Structural capacity to support concrete placing, finishing, and weight of the slab till self-supporting.
 - Will support a construction load of 2110 kg/m² (432 lb/sf).
 - Qualifies as a dynamic inclusion; mechanically responsive to expanding soils.
 - Uses thermoplastic creep to trigger programmed, timely collapse, permitting the subgrade to rise without producing undue stress against the bottom of the slab.
 - Contains no 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.
 - Material is non-toxic and hypo-allergenic.
- SELECTION CRITERIA
 - Product is available in three standard thicknesses..
 - Material is easily cut to fit around protuberances, column bases, etc.
 - Variations have been developed for high-stress applications. (E.g.; ultra-thick slabs 2 meters thick).
 - Product can be manufactured to site specific requirements for different physical characteristics and performance.
- PERFORMANCE CRITERIA
 - Structural Capacity: 2110 kg/m² (432 lb/sf) construction load.
 - Deflection: Designed to begin deflection as soils expand and then collapse under a sustained stress of 10.3 kPa (1.5 psi) in approximately 200 days.

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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 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
 - Product certified under Warnock Hershey Third Party Certification Program.
 - ISO 9001:2000 Registered Company (Quality Certification Bureau #94-41).
 - Canadian Construction Materials Centre, Evaluation 12982-L
 - International Code Council - Evaluation Service, Evaluation ER-6100
- PACKAGING, HANDLING, PROTECTION, AND DELIVERY INSTRUCTIONS
 - DYNAVOID panels come packaged and nested, two panels together.
 - DYNAVOID panels must be protected from damage during transit.
 - DYNAVOID panels must be protected from UV degradation during storage and after erection.
- LIMITATIONS
 - Product will burn when exposed to large continuous flame.
- SAFETY PRECAUTIONS
 - Normal fire precautions and good housekeeping methods must be followed during storage and application.
- AVAILABILITY
 - Available from Beaver Plastics' construction products distributors.

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PRODUCT DESCRIPTION

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

PRODUCT PROPERTIES

- MATERIALS, COMPOSITION, PROPERTIES
 - Material: Rigid closed cell, expanded polystyrene (EPS)
 - Performance:
 - Flame Spread Index/ Smoke Developed Index: Less than 25/450 to ASTM E84.
 - Thermal Resistance: RSI-0.7 (R-4.0), to ASTM C177.
 - Water absorption (by volume): Maximum 4.0 percent, to ASTM D2842.
 - Water vapour permeance: Maximum 160 ng/Pa.s.q m (2.8 Perm-inch), to ASTM E96..
- DIMENSIONS
 - Standard board sizes available:
 - 100x1220x1220 mm (4" X 4' X 4') panels.
 - 150x1220x1220 mm (6" X 4' X 4') panels.
 - 200x1220x1220 mm (8" X 4' X 4') panels.

PRODUCT PLACEMENT

- PREPARATION
 - Ground must be prepared and level.
- INSTALLATION
 - Lay DYNAVOID panels on prepared, level ground, with joints tight.
 - Cut around protuberances, column bases, etc.
 - The use of hardboard or fibreboard may be required to distribute point loads.
- COVERAGE
 - Bundle size and coverage:

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PRODUCT DESCRIPTION

PRODUCT CODE		PRODUCT SIZE	PCS/BUNDLE	AREA/BDLE	BUNDLE SIZE
40140	Imperial	4" x 4' x 4'	12	192 sq.ft.	30" x 4' x 4'
	Metric	100 x 1220 x 1220 mm	12	17.8 m ²	760 x 1220 x 1220 mm
40160	Imperial	6" x 4' x 4'	8	128 sq.ft.	30" x 4' x 4'
	Metric	150 x 1220 x 1220 mm	8	11.9 m ²	760 x 1220 x 1220 mm
40180	Imperial	8" x 4' x 4'	6	96 sq.ft.	30" x 4' x 4'
	Metric	200 x 1220 x 1220 mm	6	8.9 m ²	760 x 1220 x 1220 mm

- MAINTENANCE INSTRUCTIONS AND PROCEDURES
 - Product should not be exposed to volatile hydrocarbons and anhydrous acids, which may attack the expanded polystyrene.

Corporate Identification

Beaver Plastics
 12150 – 160 Street
 Edmonton, Alberta, Canada T5V 1H5

Phone 1-780-453-5961 (International)
 Toll free: 1-888-453-5961 (U.S. and Canada)
 Fax 1-780-453-3955
 Internet web site: <http://www.beaverplastics.com>
 E-mail: techsupport@beaverplastics.com

Technical Services Available

Phone toll free or e-mail

Classification and Filing

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 03 11 23 - Concrete Forms and Accessories

MasterFormat 1995:
 03115 – Concrete Forms and Accessories

UniFormat 1998:
 A1030.03100 – Standard Slabs on Grade

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