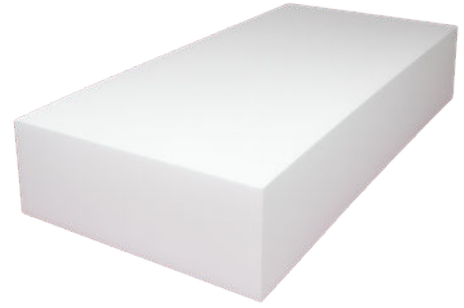


Dynaflex

Expanded Polystyrene Compressible Fill

Dynaflex is a rigid, closed-cell expanded polystyrene (EPS) compressible fill designed to protect grade beams, structural slabs, pile caps, and other concrete structural elements from uplift caused by swelling clay soils or freezing subgrade materials. It functions as a solid void form, compressing under soil movement to help protect concrete structures from damage.

Dynaflex will not soften or collapse due to water absorption and, as a solid void material, resists soil movement into underlying spaces. It offers excellent freeze / thaw durability, low moisture absorption, and long-term geotechnical performance. Dynaflex is available in three compressive-resistant grades to suit different concrete placing loads and project conditions.



APPLICATIONS

- Grade beams
- Structural slabs
- Pile caps
- Concrete structural elements at or near grade
- Frost heave protection
- Expansive clay soil protection
- Geotechnical applications requiring compressible fill beneath structural members
- Thermal and physical protection of structural foundation and perimeter materials

INSTALLATION

- Provide a level grade before installing Dynaflex
- Install in accordance with manufacturer instructions for the specific application
- Subterra Protection Board or plywood overlay may be used to distribute stresses from point loads

PRODUCT FEATURES AND CHARACTERISTICS

- Compresses before damage to structural components can occur
- Helps protect foundations and structural concrete from frost heave and expansive soil uplift
- Closed-cell EPS for all-weather performance
- Excellent resistance to freeze / thaw cycling
- Low moisture absorption
- Available in multiple densities for varying concrete placing loads
- Non-toxic and hypo-allergenic
- Biologically inert and will not support mould, mildew, or fungus growth
- Contains no CFCs, HCFCs, or other refrigerant gases
- Contains a fire-retardant additive to inhibit accidental ignition from a small fire source

CLASSIFICATION

Dynaflex Standard Density (**STD**):

- 5.08 psi (35 kPa) - 4.9 ft (1.5 m) concrete thickness

Dynaflex Medium Density (**MD-2**):

- 8.70 psi (60 kPa) - 8.2 ft (2.5 m) concrete thickness

Dynaflex High Density (**HD-4**):

- 13.78 psi (95 kPa) - 13.1 ft (4.0 m) concrete thickness

SIZES

Thickness*	Width	Length	Pieces / Bundle
4" (100 mm)	8" (200 mm)	8' (2440 mm)	36
4" (100 mm)	10" (250 mm)	8' (2440 mm)	24
4" (100 mm)	12" (300 mm)	8' (2440 mm)	24
4" (100 mm)	48" (1220 mm)	8' (2440 mm)	6
6" (150 mm)	8" (200 mm)	8' (2440 mm)	24
6" (150 mm)	10" (250 mm)	8' (2440 mm)	16
6" (150 mm)	12" (300 mm)	8' (2440 mm)	16
6" (150 mm)	48" (1220 mm)	8' (2440 mm)	4

*Any thickness up to 1220 mm (48").

Profiles

Flat sheet and custom profiles to suit grade beam or pile cap shapes can be provided. Beveled edges and other custom profiles can also be produced.

PACKAGING, HANDLING AND PROTECTION

Dynaflex must be protected from damage during transit. It must also be protected from UV degradation during storage and after installation. Do not expose the product to volatile hydrocarbons such as fuel oils, gasoline, or alcohols.

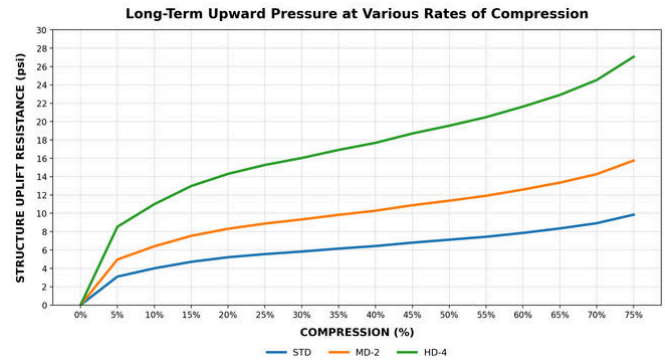
TECHNICAL DATA

RECOMMENDED MAXIMUM CONCRETE PLACING LOADS:

DYNAFLEX **High Density (HD-4)** Maximum 13.78 psi (95 kPa)
(13.1 ft (4.0 m) concrete thickness)

DYNAFLEX **Medium Density (MD-2)** Maximum 8.70 psi (60 kPa)
(8.2 ft (2.5 m) concrete thickness)

DYNAFLEX **Standard Density (STD)** Maximum 5.08 psi (35 kPa)
(4.9 ft (1.5 m) concrete thickness)



Long-Term Upward Pressure at Various Rates of Compression psi (kPa)

Version	5%	10%	15%	20%	25%	30%	35%	40%	45%	50%	55%	60%	65%	70%	75%
STD	3.10 (21.4)	4.00 (27.6)	4.71 (32.5)	5.21 (35.9)	5.55 (38.3)	5.83 (40.2)	6.15 (42.4)	6.43 (44.3)	6.80 (46.9)	7.12 (49.1)	7.44 (51.3)	7.86 (54.2)	8.35 (57.6)	8.92 (61.5)	9.85 (67.9)
MD-2	4.96 (34.2)	6.40 (44.1)	7.54 (52.0)	8.31 (57.3)	8.88 (61.2)	9.33 (64.3)	9.83 (67.8)	10.28 (70.9)	10.88 (75.0)	11.37 (78.4)	11.91 (82.1)	12.59 (86.8)	13.34 (92.0)	14.27 (98.4)	15.75 (108.6)
HD-4	8.53 (58.8)	10.99 (75.8)	12.97 (89.4)	14.30 (98.6)	15.27 (105.3)	16.03 (110.5)	16.91 (116.6)	17.68 (121.9)	18.70 (128.9)	19.55 (134.8)	20.48 (141.2)	21.63 (149.1)	22.90 (157.9)	24.53 (169.1)	27.06 (186.6)

TECHNICAL INFORMATION

Understanding Performance in Geotechnical Applications

Standard compressive strength at 10% deformation is only a comparative value and does not fully represent geotechnical conditions. Thermoplastic creep and relaxation are key factors in how EPS responds to expanding clay soils and frost uplift. Beaver's test methods were developed to measure response to relatively slow-moving earth forces and better determine suitability for geotechnical applications.

Product Selection Guidance

Where a calculation shows that a solid void product is not appropriate for a given condition, Frost Cushion or Dynavoid may be a better option.

Chemical / Environmental Characteristics

Dynaflex contains no CFCs or HCFCs, does not contribute to ozone depletion, is non-toxic, biologically inert, and will not support mould, mildew, fungus growth, or pests. It does not off-gas.

Flammability Characteristics

Dynaflex contains a chemical additive to inhibit accidental ignition from a small fire source, but it will burn when exposed to a large continuous flame. Standard fire precautions and good housekeeping practices should be followed during storage and application.

TECHNICAL SUPPORT

For technical inquiries please contact:

- productsupport@bvrthermal.com
- (888) 453-5961 Toll Free

Website:

<https://bvrthermal.com/>

APPLICABLE STANDARDS

Dynaflex is manufactured to meet or exceed applicable requirements of:

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.

MANUFACTURER

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