DuraFill® geofoam

MANUFACTURER

Plymouth Foam
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DESCRIPTION

Plymouth Foam Incorporated Dura Spec Building Products

DuraFill® brand geofoam is manufactured form molded-polystyrene.

BASIC USES

Plymouth Foam DuraFill® geofoam in geotechnical applications, including but not limited to:

- Embankments;
- Slope stabilization
- Abutment back-fill
- Pavement and parking deck insulation; lightweight fill
- Frost protection of shallow foundations
- Compressible inclusion
- Utility protection
- Retaining structures

ADVANTAGES

- Low Density / High Strength
- Thermal Insulation
- Low moisture absorption
- Low interface friction
- No Leachates
- Inert
- Durable

COMPOSITION AND MATERIAL

DuraFill® brand geofoam is a cellular plastic material that is strong for use as fill material with predictable characteristics.

It is a manufactured block material that meets or exceeds the engineered product specification of ASTM D6817 and ASTM C578.

SIZES & TYPES

Plymouth Foam DuraFill® geofoam includes one or more of the following types:

- Type EPS12 specification ASTM D6817; Minimum density 0.70 lb/ft^3 (11.2 kg/m^3)
- Type EPS15 specification ASTM D6817; Minimum density 0.90 lb/ft^3 (14.4 kg/m^3)
- Type EPS19 specification ASTM D6817; Minimum density 1.15 lb/ft^3 (18.4 kg/m^3)
- Type EPS22 specification ASTM D6817; Minimum density 1.35 lb/ft^3 (21.6 kg/m^3)
- Type EPS29 specification ASTM D6817; Minimum density 1.80 lb/ft^3 (28.8 kg/m^3)

Plymouth Foam DuraFill® geofoam is manufactured in standard size blocks or boards to meet the total requirements of the project as stated by the contractor or project engineer in cubic feet (meters). Unless otherwise specified by the contractor, nominal dimensions shall be:

- Width, 24” to 49” (600 mm to 1225 mm)
- Length, 96” to 216” (2440 mm to 5486 mm)
- Thickness, 1” to 49” (25 mm to 1225 mm)

APPLICABLE STANDARDS

ASTM C578 Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation.
ASTM D6817 Rigid Celular Polystyrene Geofoam

TECHNICAL DATA

ASTM C578 Types XI, I, VIII, II, IX

INSTALLATION

APPLICABLE STANDARDS AND PREFERENCES

RECOMMENDATIONS

The completed DuraFill® geofoam installation shall meet the requirements of current AASHTO Material Designation where applicable, ASTM D6817, ASTM C578, and of site plans and drawings provided by the contractor and/or project engineer.

EXAMINATION

Inspect DuraFill® geofoam at the job site to ensure that each product unit bears the following information:

- Manufacturer’s identification
- Date of manufacture
- ASTM Type
- Unit weight
- Lot number

Visually inspect DuraFill® geofoam to ensure that product units have arrived at the job site in good condition and that they are not soiled, cracked, punctured, or otherwise unsuitable for installation.

Remove by pressure washing, using sufficient pressure without damaging the geofoam, any surface discoloration or dusting of surfaces caused by extended exposure to sunlight.

Verify site conditions. Inspect the grade and other conditions which may affect the

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installation of the DuraFill® geofoam.

INSTALLATION

Place DuraFill® geofoam as shown on construction drawings. The first course of geofoam shall be placed directly upon the sand-leveling course. Successive courses of geofoam blocks shall be placed with lengths at 90° with respect to adjacent courses, with joints offset between courses. Butt geofoam units tightly against each other, leaving no gaps or voids.

If windy conditions prevail, take necessary precautions to prevent geofoam blocks from being blown out of correct installed position and about the job site.

Cut blocks or boards of geofoam as required by contract drawings using hot wire cutting equipment. If not available at the job site, handsaws or other cutting tools may be used.

Cover geofoam with surcharging materials (sand, gravel, soil, pavement) as soon as possible to prevent exposure to rain, snow, or excessive ultraviolet radiation and to defeat geofoam buoyancy if installed under wet conditions.

In cold climate installations where differential ice formation may occur on pavements, place a layer of sub-base material with high fines content and good water absorption properties over the top course of geofoam. Thickness of sub-base layer shall be 20” to 32” (500 mm to 800 mm), or as determined by the project engineer.

Job Name _____

Contractor _____ Date_____

Submittal Approvals (Stamps or Signature)