

Product Information Bulletin

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Plasti-Fab® GeoSpec® EPS24 Lightweight Fill Material

Plasti-Fab® GeoSpec® EPS24 fill material is a rigid closed cell foam plastic manufactured from moulded expanded polystyrene (EPS) block. Traditional earth fill materials are generally more than 100 times heavier than **GeoSpec** fill material and can cause settlement or instability of underlying soils. **GeoSpec EPS24** fill material, in either block or board form, is used in ground fill applications where a lightweight fill material is required to reduce stresses on underlying or adjoining soils/structures.

Typical uses include lightweight fill material for landscaping and road embankment construction. The table below provides material property values for **GeoSpec EPS24** fill. Plasti-Fab also provides design assistance in selecting the required **GeoSpec** fill material for specific applications.

GeoSpec EPS24 is a customized EPS geofam block type with material properties developed to meet customer requirements. Although **GeoSpec EPS24** type designation is not a product type within ASTM D6817, **Standard Specification for Rigid Cellular Polystyrene Geofam**, material properties are monitored under a third party certification program to meet or exceed values provided in the table below.

| Material Property ¹ | Test Method | Units | GeoSpec Type EPS24 |
|---|-------------|-------------------------|--------------------|
| Product Density <i>Minimum</i> | ASTM C303 | kg/m ³ (pcf) | 24.0 (1.50) |
| Compressive Resistance ² <i>Minimum at 1% strain</i> | ASTM D1621 | kPa (psi) | 65 (9.4) |
| Compressive Modulus <i>Minimum</i> | | kPa (psi) | 6,500 (940) |
| Flexural Strength <i>Minimum</i> | ASTM C203 | kPa (psi) | 276 (40) |
| Limiting Oxygen Index <i>Minimum</i> | ASTM D2863 | % | 24 |
| Additional Compressive Resistance Properties³ | | | |
| Compressive Resistance <i>Minimum at 5% Strain</i> | ASTM D1621 | kPa (psi) | 140 (20.0) |
| Compressive Resistance <i>Minimum at 10% Strain</i> | | kPa (psi) | 155 (22.5) |

1. GeoSpec lightweight fill material properties are third party certified under a certification program administered by Intertek based upon ASTM D7557, **Standard Practice for Sampling of Expanded Polystyrene Geofam Specimens**.

2. Compressive resistance at 1% strain is within the elastic limit for the GeoSpec types in the above table and is accepted as the design compressive resistance to limit long-term deformation under structural load.

3. Compressive resistance at 5% and 10% strain in the above table are provided for applications where the intended end-use requires long-term deformation under structural load – i.e., a compressible product.