


GEOFOAM NO. 5012

SUBJECT: SPECIALTY COMPRESSIBLE APPLICATION OF GEOFOAM

DATE: OCTOBER 2015 (REVISED JANUARY 2019)

R-Shield® Geofoam is manufactured in conformance to ASTM D6817, “Standard Specification for Rigid Cellular Polystyrene Geofoam.” This standard covers the material properties most often required for geofoam applications. For most applications, long-term design loads should not exceed the linear elastic range of R-Shield Geofoam which is equal to the compressive resistance at 1% deformation.

However, in some specialty compressible applications the compressive resistance at 5% and 10% deformation may be applicable. The following Table provides the compressive resistance at 5% and 10% deformation for R-Shield Geofoam.

| R-SHIELD GEOFOAM PROPERTIES FOR COMPRESSIBLE APPLICATIONS | | | | | | | | |
|--|--------------|--|--------------|---------------|---------------|---------------|---------------|---------------|
| PRODUCT | |  | | | | | | |
| | | 12 | 15 | 19 | 22 | 29 | 39 | 46 |
| Compressive Resistance ¹ @ 5% deformation, min. | psi | 5.1 | 8.0 | 13.1 | 16.7 | 24.7 | 35.0 | 43.5 |
| | psf (kPa) | 730 (35) | 1150 (55) | 1890 (90) | 2400 (115) | 3560 (170) | 5040 (241) | 6260 (300) |
| Compressive Resistance ¹ @ 10% deformation, min. | psi | 5.8 | 10.2 | 16.0 | 19.6 | 29.0 | 40.0 | 50.0 |
| | psf (kPa) | 840 (40) | 1470 (70) | 2300 (110) | 2820 (135) | 4180 (200) | 5760 (276) | 7200 (345) |
| ASTM D6817 Compliance, Type | | EPS12 | EPS15 | EPS19 | EPS22 | EPS29 | EPS39 | EPS46 |

¹ See ASTM D6817 Standard for test methods and complete information.

The compressive resistance at 5% and 10% deformation for R-Shield Geofoam should be used only when specified by an engineer specifically for a specialty compressible application.