

DID YOU KNOW

HOW FLEXURAL STRENGTH OF EXPANDED POLYSTYRENE (EPS) FOAM IS TESTED

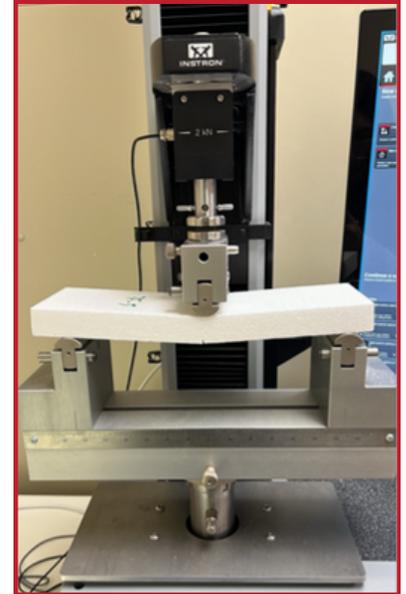


Flexural strength is the ability of a material to resist failure under a bending load. It measures how much stress a material can endure before it breaks.

In the rigid foam plastic industry, flexural strength is measured using a three-point bending test following standard ASTM C203, "Standard Test Methods for Breaking Load and Flexural Properties of Block-Type Thermal Insulation".

In this test, a sample is supported near both ends while a force is applied at the midpoint. Samples tested are commonly 1-inch thick, 12-inches long, 4-inches wide and span a 10-inch support fixture.

Although EPS is rarely used in applications where it alone must span between supports, flexural strength is the industry standard for ensuring high performance products. Flexural strength may be important for the design of sandwich panels, OEM components, or other applications.



Flexural Test Setup

Atlas products are molded to ensure they meet the flexural strength contained within industry standard requirements:

- ThermalStar® meets the flexural requirements within ASTM C578.
- Elevation® geofoam meets the flexural requirement within ASTM D6817.

Atlas Molded Products' ThermalStar insulation and Elevation geofoam, are available with flexural strengths ranging from 10 psi up to 75 psi.

Please refer to ThermalStar literature for flexural performance of building insulation and refer to Elevation literature for flexural performance of geofoam.

**FOR MORE INFORMATION AND PRODUCTS
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