Sawbones Solid Rigid Polyurethane Foam 30 pcf Density

Category : Other Engineering Material , Composite Core Material , Polymer , Thermoset , Polyurethane, TS , Thermoset Polyurethane Foam, Unreinforced

Material Notes:

Solid Rigid Polyurethane FoamPrimary UseSolid rigid polyurethane foam is primarily used as an alternative test medium for human cancellous bone. These products are not intended to replicate the mechanical properties of human bone, however, it does provide consistent and uniform material with properties in the range of human cancellous bone. Relevant mechanical properties for comparison to human cancellous bone may depend on the particular test method that is being developed. The ASTM F-1839-08 "Standard Specification for Rigid Polyurethane Foam for Use as a Standard Material for Testing Orthopaedic Devices and Instruments" states that, "The uniformity and consistent properties of rigid polyurethane foam make it an ideal material for comparative testing of bones screws and other medical devices and instruments."DescriptionSolid rigid polyurethane foam has a closed cell content ranging from 96.0 to 99.9%. Foam is available in a range of sizes and densities, from 0.08 to 0.80 grams per cubic centimeter (5 to 50 pounds per cubic foot).. Standard block size: 13cm X 18cm X 4cm Standard sheet size: 13cm X 18cm X 3mm Other NotesWater absorption ranges from 0.301 to 0.0 kg/m2Foam meets ASTM F-1839-08. Block dimensions are within ±2mm and sheet thickness is within ±0.3mm. Foam density may vary ±10%. Properties parallel to direction of the rise of foam. Information provided by Sawbones.

Order this product through the following link:

Shear Strength

http://www.lookpolymers.com/polymer_Sawbones-Solid-Rigid-Polyurethane-Foam-30-pcf-Density.php

| Physical Properties | Metric | English | Comments | |
|----------------------------|------------|---------------|----------|--|
| Density | 0.480 g/cc | 0.0173 lb/in³ | | |
| | | | | |
| Mechanical Properties | Metric | English | Comments | |
| Tensile Strength | 12.0 MPa | 1740 psi | | |
| Tensile Modulus | 0.592 GPa | 85.9 ksi | | |
| Compressive Yield Strength | 18.0 MPa | 2610 psi | | |
| Compressive Modulus | 0.445 GPa | 64.5 ksi | | |
| Poissons Ratio | 0.30 | 0.30 | | |
| Shear Modulus | 0.870 GPa | 126 ksi | | |
| | | | | |

| Thermal Properties | Metric | English | Comments |
|--------------------|---------------------------------|--------------------------------|----------|
| | 63.0 µm/m-°C | 35.0 µin/in-°F | |
| CTE, linear | @Temperature -46.0 - 93.0 °C | @Temperature -50.8 - 199 °F | |

1100 psi

Contact Songhan Plastic Technology Co.,Ltd.

7.60 MPa



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