# InStruc® PEEKBS6

**Product Description** 6% BARIUM SULFATE FILLED POLYETHERETHERKETONE (PEEK)

**Material Status** Commercial: Active

**Availability** Africa & Middle East, Asia Pacific, Europe, Latin America, North America

**Filler / Reinforcement** Barium Sulfate, 6.0% Filler by Weight

**Features** Good Dimensional Stability, Radiopaque

**Uses** Aerospace Applications, Connectors, Electrical/Electronic Applications, Engineering Parts, Housings, Industrial Applications, Industrial Parts, Metal Replacement, Military/Defense Applications, Oil/Gas Applications, Outdoor Applications, Semiconductor Applications

**Forms** Pellets

**Processing Method** Injection Molding

| Physical | Nominal Value | Unit | Test Method |
|---|---|---|---|
| Density / Specific Gravity | 1.33 | g/cm³ | ASTM D792 |
| Molding Shrinkage - Flow | 1.0 to 1.3 | % | ASTM D955 |
| Water Absorption (24 hr) | 0.15 | % | ASTM D570 |

| Mechanical | Nominal Value | Unit | Test Method |
|---|---|---|---|
| Tensile Modulus | 4140 | MPa | ASTM D638 |
| Tensile Strength | 89.6 | MPa | ASTM D638 |
| Tensile Elongation (Yield) | 9.0 | % | ASTM D638 |
| Flexural Modulus | 3450 | MPa | ASTM D790 |
| Flexural Strength | 121 | MPa | ASTM D790 |

| Impact | Nominal Value | Unit | Test Method |
|---|---|---|---|
| Notched Izod Impact (3.18 mm) | 64 | J/m | ASTM D256 |
| Unnotched Izod Impact | 800 | J/m | ASTM D4812 |

| Thermal | Nominal Value | Unit | Test Method |
|---|---|---|---|
| Deflection Temperature Under Load | | | ASTM D648 |
| 1.8 MPa, Unannealed | 171 | °C | |

| Injection | Nominal Value | Unit |
|---|---|---|
| Drying Temperature | 149 | °C |
| Drying Time | 4.0 | hr |
| Processing (Melt) Temp | 349 to 399 | °C |
| Mold Temperature | 163 to 218 | °C |
| Back Pressure | 0.345 to 0.689 | MPa |
| Screw Speed | 40 to 70 | rpm |

Properties provided are only typical values and Americhem assumes no liability for the customer's use of the information provided. The customer assumes all responsibility for testing determining this products suitability in the customer's specific end application.

Revision Date: 9/16/2024

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**NOTES**

[1] Typical properties: these are not to be construed as specifications.

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