



Material: PPS + Solid Lubricant (Techtron® HPV)

Reinforced, internally lubricated polyphenylene sulphide material offering excellent wear resistance, load bearing capabilities and dimensional stability even when exposed to aggressive chemicals and continuous operating temperatures up to 220°C. Proven to be a cost effective alternative to PEEK, which may be over specified for certain applications.

Technical Specification

| Property | Test Method | Units | Value |
|--|------------------|-----------------------------------|------------------|
| Colour | - | - | Deep Blue |
| Density | ISO 1183 | g/cm ³ | 1.43 |
| Water Absorption - saturation in air (23°C/50%RH) | - | % | 0.03 |
| Water Absorption - saturation in water (23°C) | - | % | 0.09 |
| Tensile strength* ¹ | ISO 527 | N/mm ² | 75 |
| Tensile modulus of elasticity* ¹ | ISO 527 | N/mm ² | 3700 |
| Elongation at break* ¹ | ISO 527 | % | 5 |
| Impact - Charpy* ¹ | 179/1eU | kJ/m ² | 25 |
| Impact – Charpy notched* ¹ | 179/1eA | kJ/m ² | 3.5 |
| Hardness | Rockwell Shore D | - | M84 |
| Melt Point | - | °C | 280 |
| Max service temp in air short periods | - | °C | 260 |
| Max service temp continuously for 20000hrs | - | °C | 220 |
| Linear thermal expansion coefficient | - | K ⁻¹ x10 ⁻⁵ | 5.0 |
| Thermal Conductivity | - | W/(K.m) | 0.30 |
| Flammability (3mm thickness) | - | - | V-0 |
| Volume resistivity* ¹ | IEC93 | Ohm.cm | 10 ¹⁵ |
| Dielectric strength* ¹ | IEC243 | Kv/mm | 24 |
| Outside applications – UV resistance | - | - | A |
| Acids – strong (Ph<3) | - | - | A |
| Alkalis – strong (pH>11) | - | - | A |
| Chlorinated Hydrocarbons | - | - | A |
| Hot Water | - | - | A |
| 'A' – Acceptable service, 'B' – Limited, 'C' – Unacceptable | | | |
| * ¹ Measured on dry test specimens (where applicable) | | | |

Availability:

Rod, 500mm, 1m & 3m long – 6-100mm diameter

Plate, 500mm, 1m & 3m long x 625mm wide – 5-80mm thickness

Tube, 1m & 3m long, 50–200mm od x 30–160mm id.

Applications:

Bearings, Valve Seats, Pump Components, Rollers, Gears, High Temp Insulation, Components in boiling water or steam.

Tel: 01604 700 880

Web: www.abgrp.co.uk

Email: sales@abgrp.co.uk

The data shown are typical values and are not intended to represent specifications. Their aim is to guide the user toward a material choice.

Not all material sizes shown within the availability programme of this data sheet are available as standard.

Please contact ABG Rubber and Plastics Ltd for further details.