



Material: PAI

Offers the best toughness and impact strength of all the PAI grades. Because of its intrinsic high temperature resistance, high dimensional stability and good machinability it is very popular for precision parts in high-tech equipment. In addition, its good electrical insulating ability provides numerous possibilities in the field of electrical components. Also available in Black 5530 grade (30% glass fibre reinforced) which gives higher stiffness, strength and creep resistance than the 4203 grade.

Technical Specification

Property	Test Method	Units	Value
Colour	-	-	Yellow/Ochre
Density	ISO 1183	g/cm ³	1.41
Water Absorption - saturation in air (23°C/50%RH)	-	%	2.5
Water Absorption - saturation in water (23°C)	-	%	4.5
Tensile strength* ¹	ISO 527	N/mm ²	120
Tensile modulus of elasticity* ¹	ISO 527	N/mm ²	4500
Elongation at break* ¹	ISO 527	%	10
Impact - Charpy* ¹	179/1eU	kJ/m ²	No break
Impact – Charpy notched* ¹	179/1eA	kJ/m ²	10
Hardness	Rockwell Shore D	-	E79
Glass transition temperature	-	°C	285
Max service temp in air short periods	-	°C	270
Max service temp continuously for 20000hrs	-	°C	250
Linear thermal expansion coefficient	-	K ⁻¹ x10 ⁻⁵	3.0
Thermal Conductivity	-	W/(K.m)	0.26
Flammability (3mm thickness)	-	-	V-0
Volume resistivity* ¹	IEC93	Ohm.cm	10 ¹⁷
Dielectric strength* ¹	IEC243	Kv/mm	24
Outside applications – UV resistance	-	-	A
Acids – strong (Ph<3)	-	-	B/C
Alkalis – strong (pH>11)	-	-	B/C
Chlorinated Hydrocarbons	-	-	A
Hot Water	-	-	C
‘A’ – Acceptable service, ‘B’ – Limited, ‘C’ – Unacceptable			
* ¹ Measured on dry test specimens (where applicable)			

Availability:

Rod, 2440mm long – 2.36-50.8mm diameter

Plate, 305, 610 & 1220mm long x 305 wide – 4.76-25.4mm thickness

Applications:

Connectors, Switches, Relays, Thrust Washers, Valve Seats, Piston Rings, Mechanical Linkages, Bushes, Electrical and Thermal Insulator

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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.