

## TECAPAI IM 5030 GF30 brown -

### Chemical Designation

PAI (Polyamide-imide)

### Colour

brown

### Density

1.61 g/cm<sup>3</sup>

### Fillers

30% glass fibres

### Main features

excellent mechanical properties  
high creep resistance  
excellent chemical resistance  
good dimensional stability  
high thermal resistance  
good compressive strength

### Target Industries

aircraft and aerospace technology  
automotive industry  
oil and gas industry  
semiconductor technology  
electrical engineering  
mechanical engineering

Mechanical properties	parameter	value	unit	norm	comment
Modulus of elasticity (tensile test)		14500	MPa	ASTM D 638	1) (1) Resin data (2) Resin data
Tensile strength		221	MPa	ASTM D 638	2) (3) Resin data
Elongation at break		2.3	%	ASTM D 638	3) (4) Resin data
Flexural strength	@ 23°C	333	MPa	ASTM D 790	4) (5) Resin data
Modulus of elasticity (flexural test)	@ 23°C	11700	MPa	ASTM D 790	5) (6) Resin data
Compression strength		264	MPa	ASTM D 695	6) (7) Resin data
Compression modulus		7930	MPa	ASTM D 695	7) (8) Resin data
Impact strength (Izod)	notched	80	J/m	ASTM D 256	8)
Thermal properties	parameter	value	unit	norm	comment
Deflection temperature	1.8 MPa, Unannealed	282	°C	ASTM D 648	1) (1) Resin data
Thermal expansion (CLTE)		1.6*10 <sup>-5</sup>	cm/cm/°C	ASTM D 696	2) (2) Resin data (3) Resin data
Thermal conductivity		0.36	W/(K*m)	ASTM C 177	3)
Electrical properties	parameter	value	unit	norm	comment
Dielectric strength		33	kV/mm	ASTM D 149	1) (1) Resin data
Dissipation factor	@ 60 Hz	0.022		ASTM D 150	2) (2) Resin data
Dissipation factor	@ 1 MHz	0.050		ASTM D 150	3) (3) Resin data
Dielectric constant	@ 1 MHz	4.2		ASTM D 150	4) (4) Resin data
Dielectric constant	@ 60 Hz	4.4		ASTM D 150	5) (5) Resin data
Other properties	parameter	value	unit	norm	comment
Moisture absorption	24 hr	0.24	%	ASTM D 570	1) (1) Resin data

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