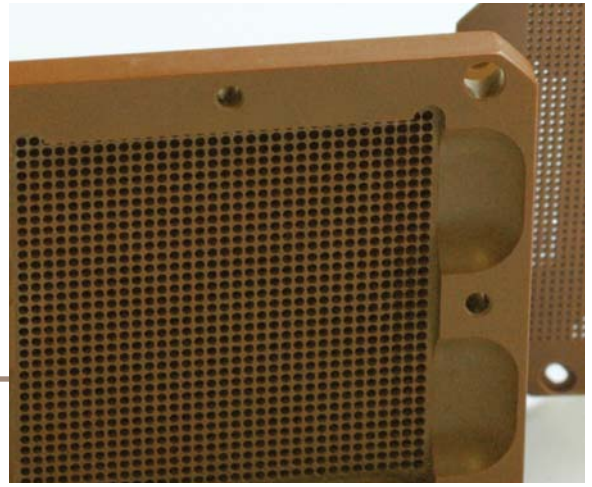


PAI (polyamide-imide)

TECATOR™



PAI (polyamide-imide) is an extremely strong and stiff plastic material. It is often used in elevated temperature environments where other thermoplastics would lose their mechanical properties.

PAI is a very dimensionally stable material with an extremely low coefficient of thermal expansion making it an excellent choice for applications that require machining to tight tolerances.

PAI is available in a variety of formulations including electrical, bearing and wear, and glass-filled grades. Electrical grade PAI has extremely high dielectric strength and it is often used for applications where it functions as an electrical insulator. Bearing grade PAI can be used for demanding bearing applications that require extreme loads, speeds, and/or elevated temperatures. Glass-filled PAI has enhanced strength and stiffness.



KEY CHARACTERISTICS:

- Strong and stiff
- Performs well at elevated temperatures
- Extremely low thermal expansion
- Excellent electrical insulating properties (electrical grade)
- Outstanding bearing and wear properties (bearing grade)
- Good resistance to many common solvents, fuels, and acids

APPLICATIONS:

- Semiconductor machinery parts
- Chip test sockets
- Aerospace components
- Electrical connectors
- Bearings and bushings
- Bearing cages
- Pump and valve parts
- Seals

PAI TYPICAL PROPERTIES:

	UNITS	ASTM TEST	PAI UNFILLED GRADE	PAI BEARING GRADE
Tensile strength	psi	D-638	21,000	19,000
Flexural modulus	psi	D-790	711,000	870,000
Izod impact (notched)	ft-lbs/in of notch	D-256	2.3	2.0
Heat deflection temperature @264 psi	°F	D-648	532	534
Maximum continuous service temperature in air	°F		500	500
Water absorption (immersion 24 hours)	%	D-570	0.30	-
Coefficient of linear thermal expansion	in/in/°Fx10 ⁻⁵	D-696	1.7	-

Standard Sizes: SHEET: 11.8"x48" (0.197"-1.575" thick) ROD: diameter 0.295"-3.15"

Length, width, thickness, and diameter tolerances vary by size and by manufacturer • Custom sizes and colors available upon request • Many of our materials are available as films with thicknesses of 0.029" or less. Values may vary according to brand name. Please ask your Curbell Plastics representative for more specific information about an individual brand.

Curbell Plastics has been supplying plastic sheet, rod, tube, films, adhesives, sealants, and prototyping materials for over 65 years



NATIONWIDE
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