Duratron® PAI - polyamidimid

Other material names PAI: PAI
Material group: Special plastics



Duratron PAI is the highest performing, melt processable plastic. It has superior resistance to elevated temperatures. It is capable of performing under severe stress conditions at continuous temperatures to 260°C. Parts machined from Duratron stock shapes provide greater compressive strength and higher impact resistance than most advanced engineering plastics.

Duratron PAI's extremely low coefficient of linear thermal expansion and high creep resistance deliver excellent dimensional stability over its entire service range. Duratron PAI is an amorphous material with a Tg (glass transition temperature) of 280°C.

For large shapes or custom geometries like tubular bar, compression molded Duratron PAI shapes offer designers the greatest economy and flexibility. Another benefit of selecting a compression molded grade is that resins are cured, or "imidized" prior to molding which eliminates the need to post-cure shapes or parts fabricated from compression molded shapes.

Color ocher-yellow, black.

Typical applications:

- High Temperature Electrical Connectors
- low expansion rate and excellent wear resistance enable manufacturers to increase bearing speeds and extend part life
- extraordinary compressive strength and abrasion resistance permit higher production rates, longer part life, and increased support of aluminum cans during printing



The material is used in:

Electrotechnical industry
Automobile industry
Chemical industry

Features:

- Maintains strength and stiffness to 260°C
- Minimal expansion rate to 260°C
- Excellent wear resistance in bearing grades
- Able to endure harsh thermal, chemical and stress conditions

Material availability: Material in stock at the manufacturer

Material properties table

Antistatic material	No

Permanent use temperature	-50 ; 250 °C
Transient temperature of use	-50 ; 270 °C
Food contact	Yes
Special features	• výborná stálosť mechanických vlastnosti v celom rozsahu teplôt

Engineering plastics are supplied in the form of bars, plates, strips, tubes and sheets. From the semi-finished products the company TechPlasty has regularly in stock, we also supply blanks.

All standard and special materials are designed to meet your specific requirements. Their mechanical, thermal, and electrical properties and chemical resistance satisfy the most demanding requirements and this allows them to work even in the most difficult conditions. If you need advice when choosing the appropriate material for your application, please contact us. We'll gladly advise you. You can utilize the long-term experience of our technical advisors free-of- charge, who can visit you right in your operation and solve your requirements for engineering plastics directly at the site of their usage.

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