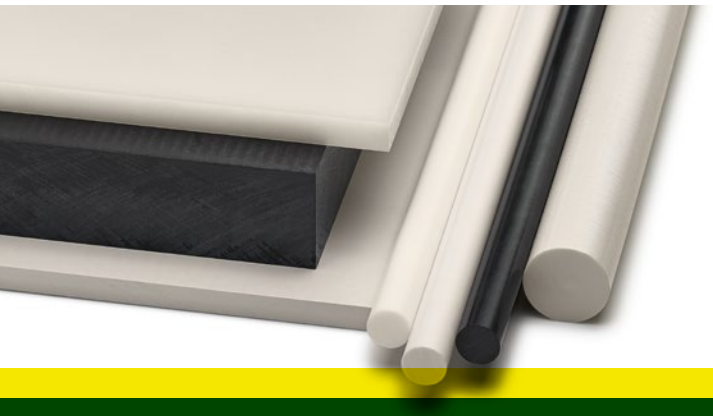


Interior Applications for Aerospace

Flame retardant Polyamids: TECAMID 6 FRT

TECAMID 6 FRT is a high-performance thermoplastic material designed for applications requiring both mechanical strength and fire safety. Its flame-resistant properties make it ideal for aerospace, while it also offers excellent thermal, chemical resistance, and electrical insulation.

Advantages

→ Meets fire safety standards: UL94 V-0, FAR25.853, EN45545
→ Good machinability
→ Durable and stable under load
→ Lightweight
→ Performs well in high-heat environments up to 100 °C
→ Great wear and sliding properties
→ Good chemical resistance
→ Durable in harsh environments, resistant to oils, greases and fuels
→ Electrical insulation: ideal for electrical applications

Machined parts

Shapes

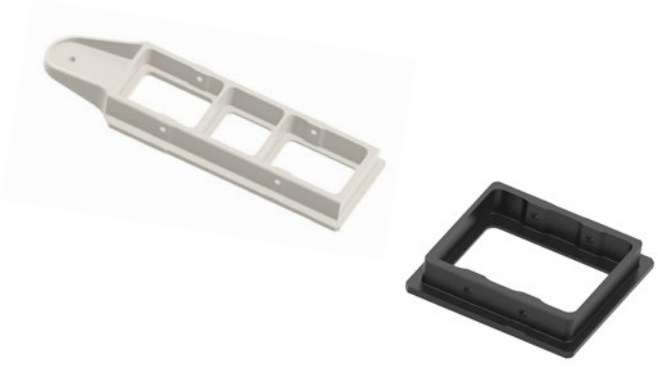
Availability as plates and rodes

Dimensions: - plates from 10 mm to 100 mm
- rodes from 10 mm to 100 mm

TECAMID 6 FRT natural	*machined parts based on customer drawings*
TECAMID 6 FRT black	

Business cases from aerospace application

Devices and insulation components in drones.
Requirements:
→ FAR 25.853 and UL94 –V0
→ good mechanical strength
→ excellent wear and sliding properties



Pin and Rail Assembly in Drones

Smart solutions for safety & performance in aerospace

Application	Reasons for use
Seat components	Lightweight, fire protection, durable and stable under load
Air deflectors	Lightweight, fire protection, resistance to high temperatures
Electrical insulators	Electrical insulation, fire protection, mechanical strength
Instrument panels	Fire protection, good machinability, mechanical strength
Interior claddings	Aesthetics, fire protection, lightweight
Cargo compartment parts	Mechanical strength, fire protection, lightweight
Cable holders	Electrical insulation, fire protection, durable and stable under load
Support for safety systems	Fire protection, good machinability
Ventilation grilles	Lightweight, fire protection, durable and stable under load
Door rails	Lightweight, good machinability, fire protection
Electronics housings	Fire protection, electrical insulation, protection from impacts and environmental factors
Battery mounts	Fire protection during overheating, durable and stable under load, lightweight

Test description	FAR 25.853	Airbus ABD 0031 specification	Boeing specification
Flammability – 60 seconds Vertical Bunsen Burner test	FAR Part 25, § 25.853 (a) and Appendix F, Part I, para. (a)(1)(i)	AITM 2.0002A as per Airbus directive ABD 0031	BSS 7230 F1
Flammability – 15 seconds Horizontal Bunsen Burner test (Part A & Part B)	FAR Part 25, § 25.853 (a) and Appendix F, Part I, para. (a)(1) (iv) and (v)	AITM 2.0003 as per Airbus directive ABD 0031	BSS 7230 F2
Heat Release	FAR Part 25, § 25.853 (d) and Appendix F, Part IV	AITM 2.0006 as per Airbus directive ABD 0031	BSS 7230 F3
Flammability – Smoke density		AITM 2.0007B as per Airbus directive ABD 0031	BSS 7322
Flammability – Gas Toxicity		AITM 3.0005 as per Airbus directive ABD 0031	BSS 7238

Raw material UL94 V0 approved
V0 as inherent flammability for tested thicknesses 0.38, 0.75; 1.5 and 3.0 mm

The Ensinger Group is engaged in the development, manufacture and sale of compounds, semi-finished materials, composites, technical parts and profiles made of engineering and high-performance plastics. To process the thermoplastic polymers, Ensinger uses a wide range of production techniques, such as extrusion, machining, injection moulding, casting, sintering and pressing. With a total of more than 2,500 employees at over 30 locations, the family-owned enterprise is represented worldwide in all major industrial regions with manufacturing facilities or sales offices.

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Find out more about aerospace

Contact

aerospace@ensingerplastics.com

Ensinger GmbH · Rudolf-Diesel-Straße 8 · 71154 Nufringen · Germany
Phone +49 7032 819 0 · info@ensingerplastics.com · ensingerplastics.com