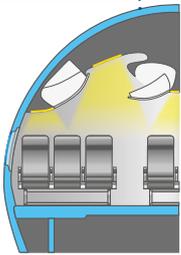
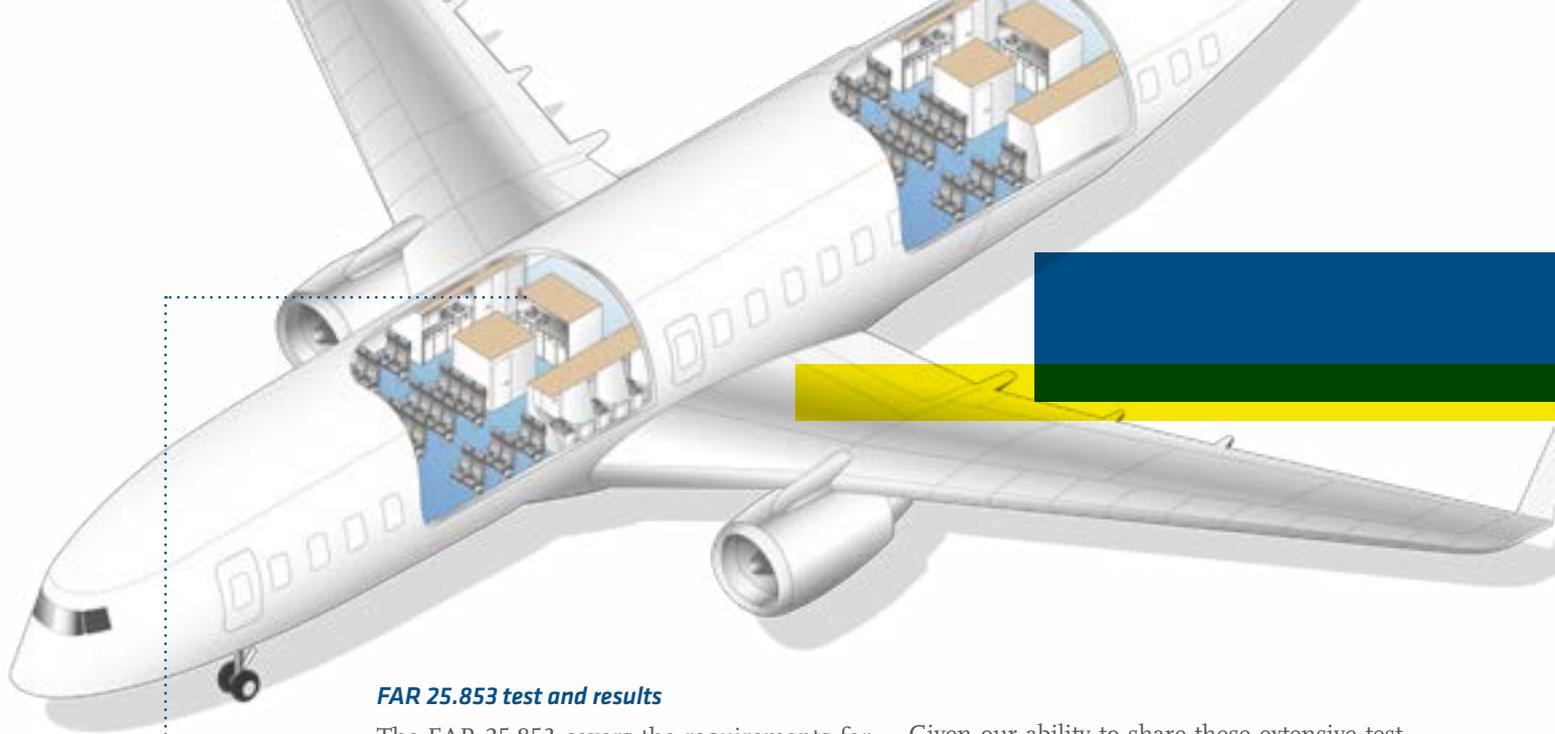


*Aerospace*

*Ensinger thermoplastics solutions  
for aircraft interior applications*





#### Cabin interior

- Air management systems
- Drinking water systems
- Lighting
- Seats
- Overhead storage
- Galley, lavatory
- Galley inserts

#### FAR 25.853 test and results

The FAR 25.853 covers the requirements for the materials used in aircraft interiors like flammability, smoke density, combustion emission and toxicity. When testing to the FAR 25.853 specification, Ensinger indicates the thickness of the material tested. Flammability documentation is available on request.

We tested to either a 60 second vertical burn test standard or a 12 second vertical burn test standard, additional smoke emission and toxicity, and heat release tests can also be done if required.

Given our ability to share these extensive test results with our customers, these “ready for use” materials truly open up new possibilities and opportunities for design improvements in commercial aircraft interiors and VIP aircraft interiors alike. Aircraft interior materials designated for use in an aircraft cabin environment must meet certain flammability requirements.

We offer a wide range of materials to cover the requirements for many applications in aircraft interior applications such as seats, lighting, galleys or cockpit equipment.

#### Correspondence of testing methods between FAR 25.853, AITM and BSS

Test description	FAR 25.853	Airbus ABD 0031 specification	Boeing specification
<b>Flammability 60 seconds vertical</b>	FAR Part 25, § 25.853 (a) and Appendix F, Part I, para. (a)(1)(i)	AITM 2.0002A	BSS 7230 F1
<b>Flammability 12 seconds vertical</b>	FAR Part 25, § 25.853 (a) and Appendix F, Part I, para. (a)(1)(ii)	AITM 2.0002B	BSS 7230 F2
<b>Flammability 15 seconds horizontal</b>	FAR Part 25, § 25.853 (a) and Appendix F, Part I, para. (a)(1) (iv)	AITM 2.0003	BSS 7230 F3
	FAR Part 25, § 25.853 (a) and Appendix F, Part I, para. (a)(1) (v)		BSS 7230 F4
<b>Heat Release</b>	FAR Part 25, § 25.853 (d) and Appendix F, Part IV	AITM 2.0006	BSS 7322
<b>Smoke Density</b>	AR Part 25, § 25.853 (d) and Appendix F, Part V	AITM 2.0007A & B	BSS 7238
<b>Combustion Toxicity</b>	N/A	AITM 3.0005	BSS 7239

#### Key Benefits

- ✓ Weight saving (up to 60% weight saving compared to Aluminium)
- ✓ Beneficial cost performance ratio
- ✓ Flame retardant
- ✓ Corrosion resistant

# High-performance plastics with flammability certificate



*TECAPEEK natural (PEEK)*

Tested thickness: 1 mm

Tested time: 60 seconds



*TECAPEEK CF30 black (PEEK, CF)*

Tested thickness: 1 mm

Tested time: 60 seconds



*TECAPEEK GF30 natural (PEEK, GF)*

Tested thickness: 1 mm

Tested time: 60 seconds



*TECAPEEK PVX black (PTFE, CF, CS)*

Tested thickness: 1 mm

Tested time: 12 seconds



*TECAMID 6 FRT natural (PA 6, FR)*

Tested thickness: 3 mm

Tested time: 60 seconds

Smoke density/Toxicity/Heat release

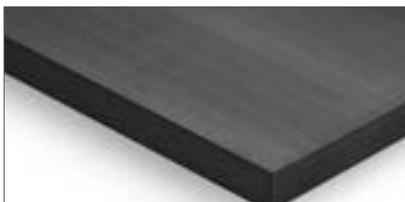


*TECAMID 66 GF15 FR black (PA 66, GF, FR)*

Tested thickness: 4 mm

Tested time: 60 seconds

Smoke density/Toxicity



*TECANYL VH2 black/grey (PPE, FR)*

Tested thickness: 3 mm

Tested time: 60 seconds



*TECAPEI GF30 natural (PEI, GF)*

Tested thickness: 6 mm

Tested time: 60 seconds



*TECAPEI natural (PEI)*

Tested thickness: 1 mm

Tested time: 60 seconds



*TECATRON natural (PPS)*

Tested thickness: 3 mm

Tested time: 60 seconds



*TECATRON GF40 black (PPS, GF)*

Tested thickness: 1 mm

Tested time: 12 seconds



*TECATRON PVX black (PPS, PTFE, CF, CS)*

Tested thickness: 1 mm

Tested time: 12 & 60 seconds

The flammability has been tested according to FAR 25.853 (a) and Appendix F Part I, para. (a)(1)(i) or (ii): respectively 60s or 12s vertical Bunsen burner test. Smoke emission, toxicity and heat release as per aircraft manufacturer standards.

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### ***Your partner in aerospace for thermoplastics***

*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.*

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