Ensinger

AEROSPACE: focus on aircraft interiors

Ensinger thermoplastics: new solutions for aircraft interiors applications

Ensinger

Semi-finished Plastic materials for Aircraft interiors

Successfully tested in accordance with FAR 25.853

Aerospace approved FAR 25.853

FAR 25.853 tests and results

The FAR 25.853 covers the requirements for the materials used in aircraft interiors like flammability, smoke density, combustion emission and toxicity.
For flammability testing, we always indicate the thickness tested, which corresponds to the thinner wall thickness admissible on the finished part machined out of our stock shape. Flammability test certificates are available upon request at time of order.

New opportunities with Ensinger thermoplastics

We propose a wide range of materials that have been successfully tested as per international aviation regulations and aircraft manufacturers standards.
We share with you all relevant data which enables you to select quickly the correct material for the application.
Off the shelf products, ready for use!

Cabin interiors

1. Cooling, oxygen, drinking water systems, vacuum waste
2. Seating actuation
3. Seats
4. Reading lights
5. Overhead storage
6. Cabin lighting
7. Galley

Propulsion systems

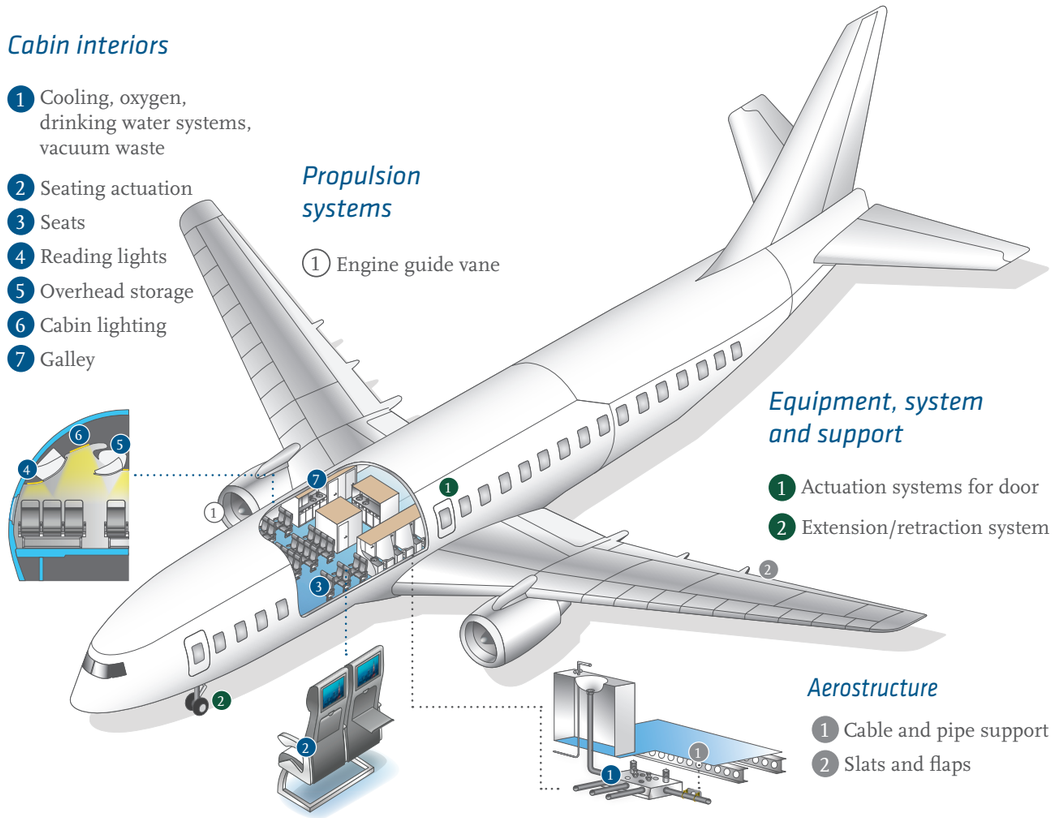
1. Engine guide vane

Equipment, system and support

1. Actuation systems for door
2. Extension/retraction system

Aerostructure

1. Cable and pipe support
2. Slats and flaps

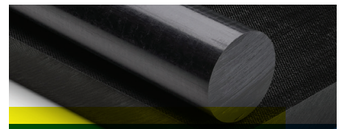


Materials tested according to flammability

TECAMID 6 FRT natural

Polyamide 6

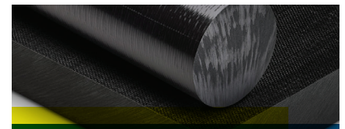
Density	1.19 g/cm³
Tested thickness	3 mm
Tested time	60 seconds
Smoke density	pass
Toxicity	pass
Heat release	pass
Possible production dimensions	10 – 100 mm



TECANYL VH2 black/grey

Polyphenylene oxide

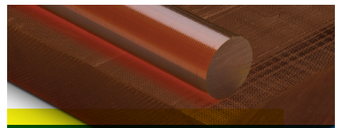
Density	1.12 g/cm³
Tested thickness	3 mm
Tested time	60 seconds
Possible production dimensions	1/4 – 4 inch



TECAMID 66 GF15 FRT black

Polyamide 66 GF

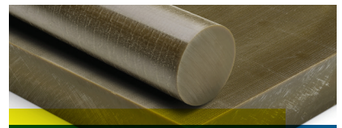
Density	1.30 g/cm³
Tested thickness	4 mm
Tested time	60 seconds
Smoke density	pass
Toxicity	pass
Possible production dimensions	3/16 – 6 inch 1/32 – 4 inch



TECAPEI natural

Polyetherimide

Density	1.28 g/cm³
Tested thickness	1 & 3 mm
Tested time	60 seconds
Possible production dimensions	8 – 150 mm 10 – 60 mm



TECAPEI GF30 natural

Polyehterimide GF

Density	1.51 g/cm³
Tested thickness	6 mm
Tested time	60 seconds
Possible production dimensions	2 – 8 inch 1/32 – 4 inch

TECAPEEK natural

Polyetheretherketone

Density	1.31 g/cm³
Tested thickness	1 mm
Tested time	60 seconds
Possible production dimensions*	4 – 210 mm 5 – 150 mm 16 – 360 mm

TECAPEEK GF30 natural

Polyetheretherketone GF

Density	1.53g/cm³
Tested thickness	1 mm
Tested time	60 seconds
Possible production dimensions*	5 – 100 mm 5 – 80 mm

TECAPEEK CF30 black

Polyetheretherketone CF

Density	1.38 g/cm³
Tested thickness	1 mm
Tested time	60 seconds
Possible production dimensions	5 – 90 mm 5 – 50 mm

TECAPEEK PVX black

Polyetheretherketone PTFE, CF, CS

Density	1.44 g/cm³
Tested thickness	1 mm
Tested time	12 seconds
Possible production dimensions*	5 – 100 mm 5 – 50 mm

TECATRON natural

Polyphenylensulfide

Density	1.36 g/cm³
Tested thickness	3 mm
Tested time	60 seconds
Possible production dimensions	3/16 – 4 inch 1/4 – 4 inch

TECATRON GF40 black

Polyphenylensulfide GF

Density	1.63 g/cm³
Tested thickness	1 mm
Tested time	12 seconds
Possible production dimensions	10 – 36 mm 10 – 60 mm

TECATRON PVX black

Polyphenylensulfide PTFE, CF, CS

Density	1.50 g/cm³
Tested thickness	1 mm
Tested time	12 & 60 seconds
Possible production dimensions	10 – 40 mm 10 – 50 mm

*also available in inch

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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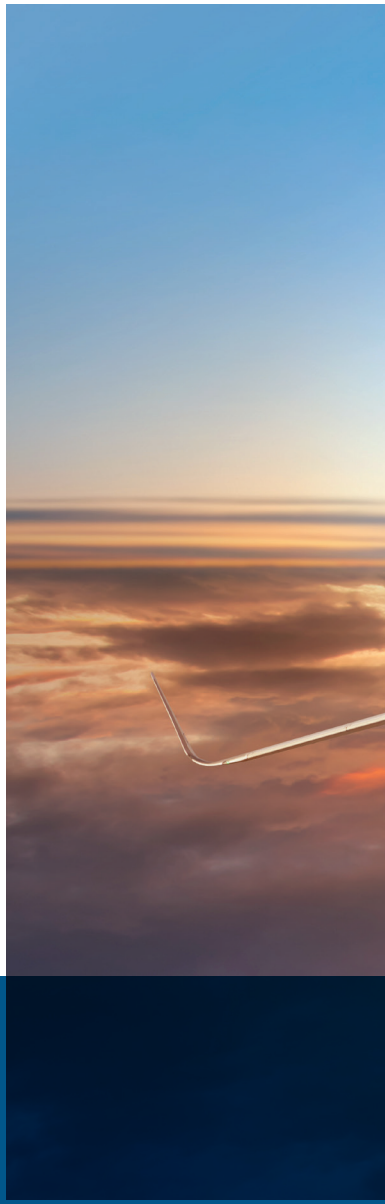

Industries

Aerospace | Automotive | Building | Food | Mechanical | Medical | Oil & Gas | Semiconductor

Your best partners in aerospace for thermoplastics

Ensinger is the global supplier for high-performance plastics, proposing various and complementary solutions for aerospace applications: compounds, stock shapes, machining, profiles and tubes, composites and additive manufacturing.
Many Ensinger materials are validated by the main aircraft manufacturers and tier 1 OEMs; we are as well an approved supplier for finished parts. Machine shops EN 9100 / AS 9100C certified.

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