

CAST URETHANE MATERIAL SPECIFICATIONS

AFP3105FR

Highlights

- Passes 60 second burn test at 0.043 inch
- Meets FAR 25.853a requirements per Appendix F, Part 1 (a1)(ii).

Applications

- Durable, high-impact strength urethane with FAR 25.853 flammability rating

TYPICAL PHYSICAL PROPERTIES

Property	Test Method	English	Metric
Color/Appearance	Visual	Translucent Amber	Translucent Amber
Elongation at Break	ASTM D638	25%	25%
Compressive Strength	ASTM D695	12,900 psi	88.9 MPa
Density	ASTM D792	0.0435 lb/in	1.20 g/cc
Flexural Modulus	ASTM D790	436,000 psi	3,000 MPa
Flexural Strength	ASTM D790	16,700 psi	115 MPa
Compressive Modulus	ASTM D695	406,265 psi	2,800 MPa
Glass Transition Temp. Tg (peak)	ASTM TMA	203°F	95°C
Glass Transition Temp. E' (onset)	ASTM TMA	179°F	82°C
Izod Impact Strength (method A, notched)	ASTM D256	1.42 ft-lb/in	—
Tensile Modulus	ASTM D638	390,000 psi	2,690 MPa
Tensile Strength	ASTM D638	10,600 psi	73 MPa
Flammability per FAA FAR Volume III, Part 25.853	FAA	Passes 60 second burn test at 0.043 inch	Passes 60 second burn test at 0.043 inch

Custom formulations, fillers such as Teflon and Aluminum powder, and additional post curing techniques may be used to enhance urethane material properties. For further information on additives and custom formulations, please contact your Solid Concepts Project Engineer. The material properties provided herein are for reference purposes only. Actual values may vary significantly as they are dramatically affected by part geometry and color pigmentation. Specifications are subject to change with out notice.

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