

Royalite R922

Polycarbonate + ABS

Spartech Plastics

Message:

ROYALITE® R922 thermoplastic sheet is a rigid, fire-rated, polycarbonate/ABS material that meets Federal Aviation requirements for flammability as well as Airbus and Boeing toxicity requirements. This sheet exhibits excellent tensile strength, flexural strength and a very high heat deflection temperature for a flame retardant material. Royalite® R922 is ideal for requirements calling for FAR 25.853a 60 second vertical burn and/or FAR 25.853b 12 second vertical burn, low toxicity, and high strength. Each generation of resin developed by ROYALITE® for the aircraft industry brings increased performance for the designer and those responsible for specifying interior materials.

APPLICATIONS:

The unique formulation of Royalite® R922 provides an increased strength-to-weight ratio over other FR materials, allowing for part weight reduction, and increased heat deflection for a high performance industry. Royalite® R922 is excellent for plastic components located in lavatories and galleys along with high-wear scuff barriers in and around service entry areas. Reliability in other high wear areas such as tray tables and armrest trim are also ideal matches for Royalite® R922 sheet.

General Information			
Features	Ultra-high impact resistance		
	Low toxicity		
	Rigidity, high		
	High strength		
	Good wear resistance		
	Medium hardness		
	Flame retardancy		
Uses	Airplane trim		
	Aircraft applications		
	Sheet		
Agency Ratings	FAR 25-25853A		
	FAR 25-25853B		
Forms	Particle		
Processing Method	Sheet extrusion molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.22	g/cm ³	ASTM D792, ISO 1183
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (grade r, 31.8mm)	115		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Stress			
Yield, 31.8mm	54.1	MPa	ISO 527-2
31.8 mm	54.1	MPa	ASTM D638
Flexural Modulus	2410	MPa	ASTM D790, ISO 178
Flexural Strength (31.8 mm)	91.0	MPa	ASTM D790, ISO 178

Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (23°C, 31.8 mm)	480	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
1.8 MPa, annealed, 31.8mm	120	°C	ASTM D648
1.8 MPa, annealed	120	°C	ISO 75-2/A
Additional Information			

FAR/JAR 60s Vertical Burn, FAR/JAR Appendix F, Part I, 0.047in: PassesBoeing Toxicity Requirements, BSS 7239: PassSpecific Gravity, ASTM D792: 1.19 to 1.24 g/cm³Stock Temperature: 360 to 430 °FDrying Time: 4 hrFAR/JAR 12s Vertical Burn, FAR/JAR Appendix F, Part I, 0.047in: PassesDrying Temp: 220 °F

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