

Royalite R6000

Polycarbonate
Spartech Plastics

Message:

ROYALITE® R6000 thermoplastic sheet is specifically formulated to meet the stringent requirements of AIRBUS ABD0031 and FAR Part 25, Appendix F as it relates to plastics used in the interior of aircraft. R6000 meets the performance criteria for flammability, smoke density and toxicity using methods set forth in ABD0031 and Boeing BMS 8-251.

APPLICATIONS:

The unique formulation of Royalite® R6000 not only allows it to meet the AIRBUS and FAA guidelines, but gives engineers, and thermoformers a material that surpasses all others in its class, in processability and durability. R6000 offers a superior range of physical and mechanical properties over other related materials, and its ease in thermoforming and machining make it this material of choice for such aircraft components as window surrounds, seats, trays, partitions, galley, and lavatory panels.

General Information			
Features	Ultra-high impact resistance		
	Low toxicity		
	Rigidity, high		
	High strength		
	Workability, good		
	Durability		
Uses	Aircraft applications		
	Sheet		
	Bracket tray		
	Seat		
Forms	Particle		
Processing Method	Sheet extrusion molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.21	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	61.4	MPa	ISO 527-2
31.8 mm	61.4	MPa	ASTM D638
Flexural Modulus	2480	MPa	ASTM D790, ISO 178
Flexural Strength (31.8 mm)	97.9	MPa	ASTM D790, ISO 178
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (23°C, 31.8 mm)	800	J/m	ASTM D256
Dart Drop Impact (23°C, 31.8 mm)	36.2	J	ASTM D3029
Thermal	Nominal Value	Unit	Test Method

Deflection Temperature Under Load			
1.8 MPa, annealed, 31.8mm	132	°C	ASTM D648
1.8 MPa, annealed	132	°C	ISO 75-2/A

Additional Information


Flame Spread Index, ASTM E162: PassAirbus Industries ABD0031, ASTM 3.0005: PassBoeing BMS 8-251, BSS 7239: PassStock Temperature: 360 to 420 °FDrying Temp: 230 °FFAR/JAR 60s Vertical Burn, FAR/JAR Appendix F, Part I, 0.060in: PassFAR/JAR Smoke Density, ASTM E-662, 0.120in: <100FAR/JAR Smoke Density, FAR/JAR Appendix F, Part V, 0.060in: <110

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