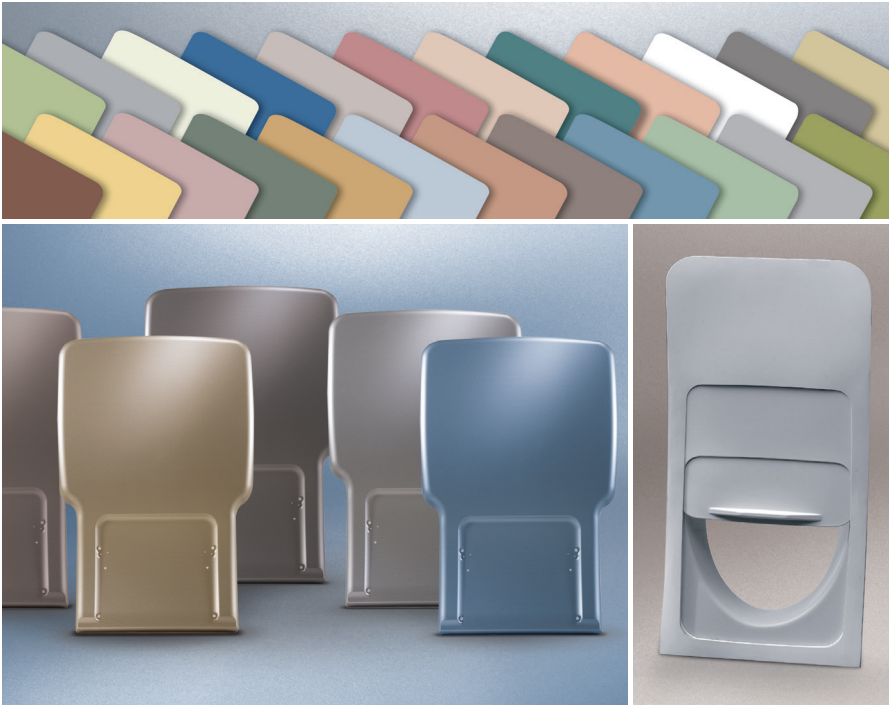


BOLTARON® 9815E

FAR-Rated High Impact Resistant Sheet for Aircraft Interiors

66% Higher impact strength affords longer service life. Comprehensive color range and the industry's widest range of textures expand design freedom.



Boltaron® 9815E meets FAR 25.853(a) and FAR 25.853(d) for smoke density and heat release required for aircraft interior components. It offers far higher notched Izod impact strength of 5.0 ft-lb/in. (265 J/m) vs. other 65/65 rated thermoplastic products that measure 3.0 ft-lb/in. (159 J/m). The result: more durability and longer service life for panels, window reveals, seat backs and other thermoformed components.

This proprietary extruded thermoplastic alloy sheet also expands design freedom with a full range of colors and the widest range of texture options in thermoplastic alloy materials. Boltaron's unique custom production capabilities also include the ability to manufacture cost-effective low minimums with fast turnaround.

In thermoformed parts, Boltaron® 9815E maintains wall thickness integrity even in deep draws and sharp corners. The consistently uniform quality of the extruded sheet also ensures optimum appearance in flat surfaces and complex formed parts.

The Boltaron impact resistant FAR 25.853(d) rated product family includes 9815E extruded sheet, 9815M in metallic finishes, 9815D with unlimited decorative patterns, 9815P in the widest range of textures, and 9815F film and thin-gauge sheet for two- and three-dimensional laminating, and Boltaron® 9850 with a 50/50 rate of heat release.

Advantages

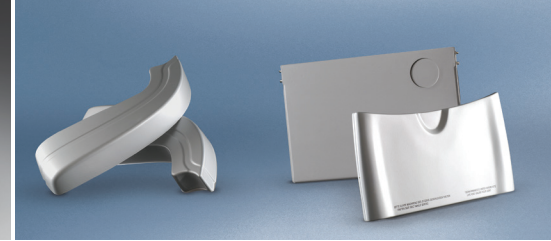
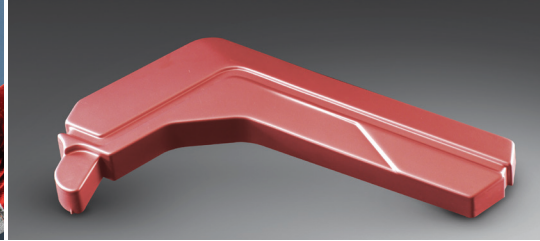
- 66% Greater impact resistance than other 65/65 thermoplastic alloy sheet
- Uniform high quality appearance
- Wall thickness integrity in deep draw forming
- Full range of colors, widest range of textures
 - Low minimums
- Lot-to-lot color consistency

Proven Applications

- Instrument panel housings
- Class dividers
- Bulkhead laminates
- Galley and lavatory components
- Bull noses, gap covers, moldings
- Sidewall and kick panels
- Window reveals
- Seat parts, backs, arm rests
- Tray tables
- Passenger Service Units (PSUs)
- Light housings
- Video monitor shrouds
- Life vest shrouds
- Air ducts

Configurations

- Sheet sizes
 - Lengths to 120 in. (3,048 mm)
 - Widths to 60 in. (1,524 mm)
 - Gauges from 0.040 to 0.250 in. (1.02 to 6.35 mm)
 - Custom sizes, gauges on request
 - Rolls available on request in gauges ≤ 0.060 in. (1.52 mm)
- Colors, textures
 - Full range of colors
 - Industry's widest range of textures
 - 500 lb minimum



PROPERTIES/FAR RATINGS

PROPERTY	TEST METHOD*	TYPICAL VALUES	
Specific Gravity	ASTM D792	1.490	
Tensile Strength	ASTM D638	5,500 psi	38 MPa
Flexural Strength	ASTM D790	8,700 psi	60 MPa
Flexural Modulus	ASTM D790	410,000 psi	2,827 MPa
Izod Impact (notched) @ 73 °F (23 °C)	ASTM D256	5.0 ft-lb/in.	265 J/m
Hardness Rockwell	ASTM D785	107	
Heat Deflection (annealed)	ASTM D648	170 °F @ 264 psi	77 °C @ 1.8 MPa
Thermal Expansion	ASTM D696	1.67 X 10 ⁻⁵ /°F	3 X 10 ⁻⁵ /°C

FAR RATINGS

Flammability		
Vertical burn, 60 sec	FAR 25.853(a)(i)	PASS
Vertical burn, 12 sec	FAR 25.853(a)(ii)	PASS
OSU Heat Release		
Peak - HRR, kW/m ²	FAR 25.853(d)(Part IV)	<65
2 Min - HRR, kW-min/m ²		<65
NBS Smoke		
Ds @ 1.5 min	FAR 25.853(d)(Part V)	<100
Ds @ 4 min		<200

*Independent lab tests. All tests at 73 °F (22.8 °C) in dry conditions unless otherwise noted.

THERMOFORMING PARAMETERS

Mold Shrinkage	0.5 - 0.7%	
Forming Temperature	335 - 370 °F	168 - 188 °C
Typical Heater Settings	30 - 50% Top, 50 - 70% Bottom	
Drying	Not required	

BOLTARON® FAR RATED SHEET PRODUCTS

Impact resistant FAR 25.853(d) sheet grades - opaque

- Boltaron® 9815E: Extruded, full range of colors, textures
- Boltaron® 9815D: Decorative patterns, textures
- Boltaron® 9815M: Metallic surface finish
- Boltaron® 9815F: Film, thin-gauge sheet
- Boltaron® 9815P: Custom textures
- Boltaron® 9850: 50/50 RHR

Enhanced performance grades

- Boltaron® 4205: Superior temperature resistance
- Boltaron® 4330: Superior impact resistance
- Boltaron® 4800: FAR smoke emissions & flame rated

Translucent grades

- Boltaron® 4350: Custom routed parts
- Boltaron® 9816: Custom routed parts; FAR 25.853(a),(d)
- Boltaron® 9916: Custom routed parts, fully compliant

Window shade grades

- Boltaron® 9200/9200C
- Boltaron® 9250/9250C: Higher temperature

Additional Boltaron FAR-rated grades

- Boltaron® 6800E

SIMONA offers the widest product range of PVC sheet and rod – FM 4910 rated sheet – chemical resistant materials from PVC, PP and PE to fluoropolymers – orthotics and prosthetics sheet – Boltaron aircraft sheet – plus proven products for boat building, outdoor furniture and many other industries.

DISCLAIMER AND LIMITATION OF WARRANTY:

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