

BOLTARON® 4800 SHEET

*Low smoke and flame related sheet
for aircraft and mass transit interiors*



Boltaron® 4800 sheet, extruded from a proprietary thermoplastic alloy, was formulated specifically for compliance with low smoke and flammability test criteria for aircraft and mass transit interior applications.

This aircraft-rated material meets stringent FAR test requirements for low smoke emissions and flammability for interior components. It also satisfies ASTM E162 and ASTM E662 flammability and low smoke emission criteria and FTA, UMTA and Docket 90A guidelines for passenger rail interiors.

Boltaron® 4800 expands design freedom with a full range of colors and the widest range of textures available in thermoplastic alloy materials. It also improves the service life of interior components with its high impact strength and resistance to stains and cleaning chemicals. The material behaves consistently lot to lot in thermoforming and maintains uniform wall thickness even in deep draws and sharp corners.

Advantages

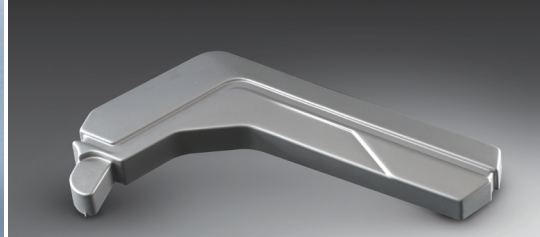
- Meets aircraft and mass transit low smoke and flame criteria
- Impact resistant
- Uniform surface appearance
- Wall thickness integrity in deep draw forming
- Infinite range of colors
- Industry's widest range of textures
- Lot-to-lot color consistency

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
- 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 in. to 0.250 in. (1.02 – 6.35 mm)
 - Custom sizes, gauges on request
- 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 | 1.435 | |
| Tensile Strength | ASTM D638 | 4,900 - 5,200 psi | 34 - 36 MPa |
| Flexural Strength | ASTM D790 | 7,800 - 8,400 psi | 54 - 58 MPa |
| Flexural Modulus | ASTM D790 | 300,000 - 330,000 psi | 2,068 - 2,275 MPa |
| Izod Impact (notched) @ 73°F (23°C) | ASTM D256 | 3 - 5 ft-lb/in. | 160 - 267 J/m |
| Gardner Drop | ASTM D2039 | >320 | |
| Hardness Rockwell | ASTM D785 | 102 - 104 | |
| Heat Deflection (annealed) | ASTM D648 | 165 - 168 psi | 1.14 - 1.16 MPa |
| Flammability - UL | UL 94 | V-0 ¹ | |

FAR RATINGS

| | | |
|-----------------------|---------------------------------------|------|
| Vertical burn, 60 sec | FAR 25.853(a)App.F, Part I,(a),1,(i) | Pass |
| Vertical burn, 12 sec | FAR 25.853(a)App.F, Part I,(a),1,(ii) | Pass |
| Smoke density | FAR 25.853(d) App.F, Part V | Pass |

MASS TRANSIT RATINGS

| | | |
|----------------------------------|---------------------------|---------------------------------------|
| Radiant panel flame spread index | ASTM E162 | <10 |
| NBS Smoke 0.125 in. (3.18 mm) | ASTM E662 Smoldering mode | <100 DS @ 90 sec. <200 DS @ 4 sec. |
| | Flame mode | <100 DS @ 90 sec. <200 DS @ 4 sec. |
| LINE "M" | P92-507 | M1 |
| MVSS 302 | — | PASS |

¹Independent lab tests. All tests at 73°F (22.8°C) in dry conditions unless otherwise noted.

THERMOFORMING GUIDELINES

| | | |
|-------------------------|--------------|-----------------|
| 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 | |

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.

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

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Boltaron Inc.

1 General Street
Newcomerstown, OH 43832
Phone 1 740 498 5900
(US) 1 800 342 7444
Fax 1 740 498 5448
info@boltaron.com
www.boltaron.com