

Product Highlights

- Operating temperature
-70°C to +200°C
(-94°F to +392°F)
Class H
- Grade A (7,000V)
- Meets VW-1
- FAR Part 25
- MIL-I-3190/6
- NEMA 5
- Expands 25% or more
in diameter without
damage
- Available in blue/gray
color only



Ben-Har™ 1151-FRB Grade A is a rugged, flame-retardant, silicone rubber coated sleeving that provides excellent cut-through and abrasion protection for wiring systems in applications with temperatures ranging from -70°C to +200°C. Because the specially formulated silicone rubber is extrusion coated over the non-combustible fiberglass braid, it results in a reinforced sleeving that is superior to ordinary dip-coated sleeving and unreinforced rubber or plastic tubing.

The improved flame-retardant characteristics mean that 1151-FRB Grade A is difficult to ignite, has a very slow rate of burn travel and self-extinguishes promptly - even after bottom ignition of a vertical specimen. 1151-FRB Grade A is used to separate/isolate/insulate critical circuits and conductors, as a thermal barrier for limited periods, as identification marking, or as a wire bundling mechanism. It is ideal for protecting wiring systems in modern jet aircraft against abrasion, impact, harmful drip, splash or spray. Qualified by major U.S. airframe manufacturers, 1151-FRB Grade A meets all of the performance requirements of MIL-I-3190/6.

Ben-Har 1151-FRB Grade A is resistant to hydraulic fluids (including Skydrol LD), jet fuels, inorganic acids, and alkalis. Some swelling occurs in aromatic hydrocarbons and chlorinated solvents.



Our manufacturing sites are
certified ISO 9001, IATF 16949,
or AS/EN 9100, ISO 14001
and ISO 45001 (Selected Sites)

Performance Data – Ben-Har™ 1151-FRB Grade A

| Property | Test Method | Result |
|-----------------------------|------------------------------------|-----------------------------------|
| Operating temperature range | | -70°C to +200°C (-94°F to +392°F) |
| Hardness, durometer | ASTM D240, Shore A | 50 +/- 5 |
| Fungus Resistance | MIL-I-631 | No Growth |
| Smoke Density | ASTM E-662 (4 minutes) | D _s < 70 |
| Dielectric Breakdown | ASTM D149 | 7 kV Minimum |
| Flammability | FAR Part 25 (12 seconds, vertical) | Pass |

All numeric performance data shows average or typical values. Please consult your sales representative for product drawings, test reports and OEM approvals.

Product Specifications

| Commercial Part Number | Recommended Application Range mm (in) | | Maximum Weight g/m (lb/ft) | Standard Packaging m (ft) |
|---------------------------------|---------------------------------------|--------------|----------------------------|---------------------------|
| | Min Ø | Max Ø | | |
| Ben-Har 1151-FR B Grade A 1.7-6 | 1.6 (0.064) | 1.9 (0.074) | 8.7 (0.0058) | 610 (2000) |
| Ben-Har 1151-FR B Grade A 2.2-6 | 2.1 (0.081) | 2.3 (0.091) | 10.5 (0.0070) | 305 (1000) |
| Ben-Har 1151-FR B Grade A 2.7-6 | 2.6 (0.102) | 2.8 (0.112) | 11.1 (0.0075) | 305 (1000) |
| Ben-Har 1151-FR B Grade A 3-6 | 2.9 (0.114) | 3.1 (0.124) | 14.1 (0.0095) | 305 (1000) |
| Ben-Har 1151-FR B Grade A 3.4-6 | 3.3 (0.129) | 3.6 (0.141) | 15.2 (0.0102) | 305 (1000) |
| Ben-Har 1151-FR B Grade A 3.8-6 | 3.7 (0.144) | 4.0 (0.158) | 17.4 (0.0117) | 305 (1000) |
| Ben-Har 1151-FR B Grade A 4.2-6 | 4.1 (0.162) | 4.5 (0.178) | 24.1 (0.0162) | 152 (500) |
| Ben-Har 1151-FR B Grade A 4.7-6 | 4.6 (0.182) | 5.0 (0.198) | 24.7 (0.0166) | 152 (500) |
| Ben-Har 1151-FR B Grade A 5.3-6 | 5.2 (0.204) | 5.7 (0.224) | 28.0 (0.0188) | 152 (500) |
| Ben-Har 1151-FR B Grade A 5.9-6 | 5.8 (0.229) | 6.3 (0.249) | 28.8 (0.0194) | 152 (500) |
| Ben-Har 1151-FR B Grade A 6.7-6 | 6.6 (0.258) | 7.1 (0.278) | 41.4 (0.0278) | 76 (250) |
| Ben-Har 1151-FR B Grade A 7.5-6 | 7.3 (0.289) | 7.9 (0.311) | 58.0 (0.0389) | 76 (250) |
| Ben-Har 1151-FR B Grade A 8.4-6 | 8.3 (0.325) | 8.8 (0.347) | 61.9 (0.0416) | 76 (250) |
| Ben-Har 1151-FR B Grade A 10-6 | 9.5 (0.375) | 10.1 (0.399) | 63.4 (0.0426) | 76 (250) |
| Ben-Har 1151-FR B Grade A 11-6 | 11.1 (0.438) | 11.7 (0.462) | 90.1 (0.0605) | 38 (125) |
| Ben-Har 1151-FR B Grade A 13-6 | 12.7 (0.500) | 13.3 (0.524) | 138.5 (0.0930) | 38 (125) |
| Ben-Har 1151-FR B Grade A 16-6 | 15.9 (0.625) | 16.6 (0.655) | 149.7 (0.1005) | 15 (50) |
| Ben-Har 1151-FR B Grade A 19-6 | 19.1 (0.750) | 20.0 (0.786) | 187.2 (0.1257) | 15 (50) |
| Ben-Har 1151-FR B Grade A 22-6 | 22.2 (0.875) | 23.1 (0.911) | 270.3 (0.1815) | 15 (50) |
| Ben-Har 1151-FR B Grade A 25-6 | 25.4 (1.000) | 26.3 (1.036) | 301.1 (0.2022) | 15 (50) |

Part Numbering System

| Example | Product Name | Size | Color | Quantity |
|---------|--------------------------|------|---------------|---------------|
| | Ben-Har 1151-FRB Grade A | 4.2 | 6 (Blue/gray) | 152m (500 ft) |



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