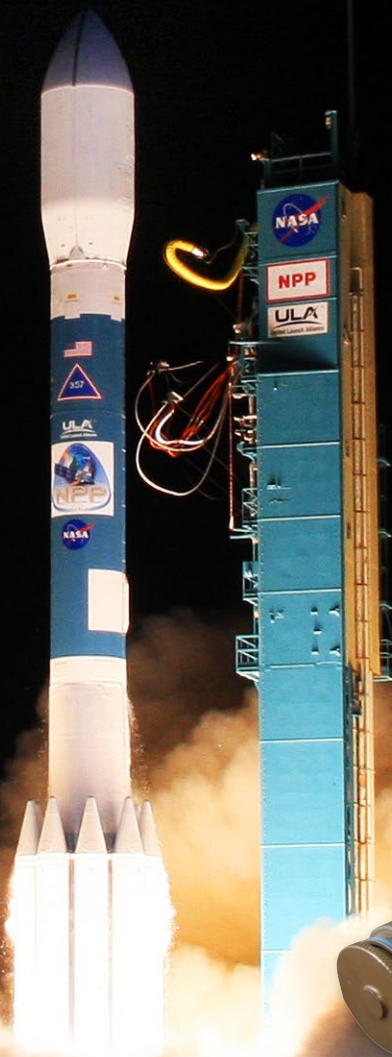




Glenair®



AmberStrand® is ultra-lightweight microfilament metal clad EMI/RFI composite braiding.

Glenair offers AmberStrand® users direct factory overbraiding services for point-to-point and multi-branch interconnect assemblies.



LIGHTWEIGHT

AmberStrand®

Composite metal-clad EMI/RFI expandable braided shielding

The smart way to reduce launch and flight weights in aerospace systems

For many applications, the cable shield is the most important element in controlling EMI. Unfortunately, metal shielding—especially when applied in multiple layers—can be extremely heavy. The opportunity to provide robust EMI shielding at a fraction of the weight is the principal advantage of composite thermoplastic EMI/RFI braid made from AmberStrand® material. Transfer impedance test reports demonstrate the effectiveness of the material compared to conventional metal solutions. So get smart! Reduce weight and save money with AmberStrand®

- Metal-clad EMI/RFI Shielding with a lightweight composite thermoplastic base material
- Highly conductive surface plating
- Reduce shielding weight up to 80% and more
- Reduce operation costs by permanently reducing launch and aircraft all-up weights
- Superior high frequency shielding compared to tinned and/or nickel plated copper
- Tensile strength: 590,000 psi (min)

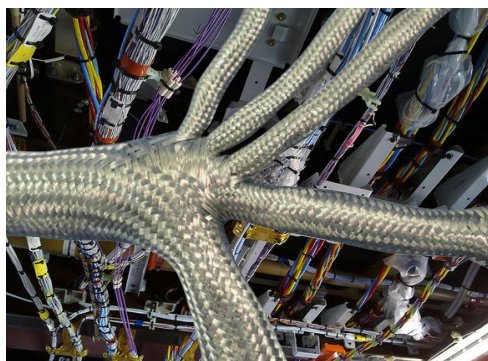
LIGHTWEIGHT, FLEXIBLE

AmberStrand® Composite Braid for EMI/RFI Shielding Applications



The lightest weight EMI/RFI braid in the industry

103-026 AmberStrand® 100% Lightweight Composite Thermoplastic Nickel Plated EMI/RFI Braid		
Tensile Strength	590,000 psi (min)	ATP196 MOD
Operating Temperature	-80°C to +220°C	85% shielding effectiveness, 1000 hrs
Specific Gravity	1.45% (max)	ISO 1183
Thermal Cycling	No adverse effects in visual inspection or resistance after 50 cycles	-65°C to +200°C In accordance with ANSI/EIA-364-75-1997
Lightning Current	Glenair qualification test report 040607AMB	In accordance with ANSI/EIA-364-75-1997
Surface Transfer Impedance	Glenair qualification test report 040607AMB	IEC 96.1 A.5.5.3 method 2
Vertical Flammability	Self-extinguishing ≤ 2 sec. Burn length 0.1 in. max - Dripping 0.0 sec	14CFR part 25.853 (A) AMDT25-116 Appendix F Part I (a) (1) (ii)
Fungus Resistance Testing	28 day incubation test: No fungus growth	Mil-Std 810F, Method 508.5
Mass Loss And CVCM	1.0% max mass loss; .10% max CVCM	ASTM E595
Flex Test 50,000 Cycles	No tearing or visible damage	90° to 120° bend
Salt Spray 500 hrs.	DC Resistance IAW AS85049 .5 milliohms; no visible evidence of base metal on braid	ASTM B 117-03 Sodium Chloride 5%
Salt Fog SO2	No damage or adverse effects	ASTM G 85 Annex 4 200 hrs.
JP-8 (Mil-T-83133) Military Jet Aircraft Fuel (70°C)	No fraying, DC resistance within limits (AS85049 paragraph 4.6.3)	Mil-STD 810F Method 504 (Modified)
Skydrol Military Jet Aircraft Fuel (90°C)	No fraying, DC resistance within limits (AS85049 paragraph 4.6.3)	Mil-STD 810F Method 504 (Modified)
Hydraulic Fluid Mil-H-5606 (70°C)	No fraying, DC resistance within limits (AS85049 paragraph 4.6.3)	Mil-STD 810F Method 504 (Modified)
Silicate Ester Based Coolanol 25R (70°C)	No fraying, DC resistance within limits (AS85049 paragraph 4.6.3)	Mil-STD 810F Method 504 (Modified)
Polyalphaolefin Mil-C-87252 (70°C)	No fraying, DC resistance within limits (AS85049 paragraph 4.6.3)	Mil-STD 810F Method 504 (Modified)
Lubricating Oil Mil-L-23699 8 hrs. @ 150°C, followed by 72 hrs. @ 65°C	No fraying, DC resistance within limits (AS85049 paragraph 4.6.3)	Mil-STD 810F Method 504 (Modified)
Isopropyl Alcohol 8 hrs. @ 50°C followed by 72 hrs. @ 65°C	No fraying, DC resistance within limits (AS85049 paragraph 4.6.3)	Mil-STD 810F Method 504 (Modified)
Cleaner Fluid Mil-C-85570 8 hrs. @ 23°C followed by 72 hrs. @ 65°C	No fraying, DC resistance within limits (AS85049 paragraph 4.6.3)	Mil-STD 810F Method 504 (Modified)
De-icer Fluid AMS-1432 8 hrs. @ 23°C followed by 72 hrs. @ 65°C	No fraying, DC resistance within limits (AS85049 paragraph 4.6.3)	Mil-STD 810F Method 504 (Modified)
Fire Extinguishing foam 8 hrs. @ 23°C followed by 72 hrs. @ 65°C	No fraying, DC resistance within limits (AS85049 paragraph 4.6.3)	Mil-STD 810F Method 504 (Modified)
R-134 Refrigerant 8 hrs. @ 23°C followed by 72 hrs. @ 65°C	No fraying, DC resistance within limits (AS85049 paragraph 4.6.3)	Mil-STD 810F Method 504 (Modified)



Up to 88% weight savings vs. NiCu

AmberStrand® 100% vs. nickel-coated copper			
Braid Dia.	AmberStrand® 100% 103-026	Nickel-Copper 100-003	% Weight Savings/ Foot
.062	.6	1.9	68%
.125	1.0	4.8	79%
.250	1.8	16.1	88%
.375	2.3	18.5	87%
.500	3.7	22.3	83%
.625	4.4	27.7	84%
.750	5.2	34.3	85%
1.000	8.0	35.0	77%

AmberStrand® 75% vs. nickel-coated copper			
Braid Dia.	AmberStrand® 75/25% NiCu 103-027	Nickel-Copper 100-003	% Weight Savings/ Foot
.062	.9	1.9	52%
.125	1.5	4.8	68%
.250	2.4	16.1	85%
.375	3.9	18.5	79%
.500	5.4	22.3	76%
.625	6.4	27.7	77%
.750	7.2	34.3	79%
1.000	11.0	35.0	69%