

Glenair Composite Metal-Clad Light Weight EMI/RFI Braided Shielding*

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 braid made from AmberStrand® material. Transfer impedance test reports demonstrate the effectiveness of the material as compared to conventional metal solutions. Mechanical properties are comparable to other non-metallic materials (see Table I).

Electrically Conductive

Superior High Frequency Shielding in High Temperature Applications

Pure AmberStrand® and Blended AmberStrand®/Nickel Copper Configurations

Comparable Performance to 36 AWG Tubular Copper Braid

Lightweight, Corrosion-Free



* Made from AmberStrand® metal-clad thermoplastic material

TABLE I: BRAID MECHANICAL PERFORMANCE

Material Type	AmberStrand® (Thermoplastic)	PEEK (Monofil)	Teflon (Yarn)	Kevlar (Yarn)	Dacron (Yarn)	Halar (Monofil)	Teflon FEP (Monofil)	Nomex (Yarn)	Polyester Type FR (Monofil)	Ryton Type R-7 (Monofil)
Glenair P/N	103-026 103-027	102-051	102-061	102-071	102-073	102-023	102-060	103-013	102-001 102-002	102-080
Temperature Range	-65° C to +200° C	-65° C to +260° C	-55° C to +260° C	-55° C to +200° C	-73° C to +175° C	-62° C to +150° C	-65° C to +200° C	-55° C to +260° C	-55° C to +125° C	-55° C to +200° C
Tensile Strength (PSI) Yield	590,000	780,000	40,000	400,000	160,000	35,000	14,000	90,000	50,000	19,000
Elongation %	2.5%	38%	19%	3.6%	12%	15%	50%	252%	20%	35%
Chemical Resistance	Excellent	Excellent	Excellent	Excellent	Good	Excellent	Excellent	Excellent	Good	Excellent
Abrasion Resistance	Good	Excellent	Good	Good	Excellent	Excellent	Good	Good	Good	Excellent
Specific Gravity	1.45	1.30	2.10	1.44	1.38	1.68	2.17	1.58	1.38	1.25
Flammability	Will Not Burn	Very Low	Will Not Burn	Will Not Melt	Flammable	Flammable	Very Low	Will Not Melt	Flammable	Very Low

* Weight savings based on comparison to 36 AWG A-A-59569 tubular copper braid