



LIGHTWEIGHT, FLEXIBLE
EMI/RFI tubular expandable braided shielding
for EMC applications
material selection guide



Principal Selection Criteria	ARMORLITE Weight Reduction with Optimized Strength and Temperature Tolerance			AmberStrand® Weight Reduction		General-Duty				High Temperature plus Corrosion Resistance
Braid Part Number and Material Construction	 103-051 Microfilament ArmorLite™ 100% SS Nickel Plated	 103-052 Microfilament ArmorLite™ 75% SS/25% NiCu	 103-071 Microfilament ArmorLite™ 50% SS/50% NiCu	 103-026 Microfilament AmberStrand® 100% Nickel Plated	 103-027 Microfilament AmberStrand® 75% / 25% NiCu	 100-001 Soft Drawn Tin Plated Copper	 100-002 Soft Drawn Silver Plated Copper	 100-003 Soft Drawn Nickel Plated Copper	 100-005 Soft Drawn Tin Plated Copper-Clad Steel	 100-004 Soft Drawn Stainless Steel
RoHS Materials										
EMI Frequency Effectiveness Range	10 KHz to 1 GHz+	10 KHz to 1 GHz+	10 KHz to 1 GHz+	10 KHz to 1 GHz+	10 KHz to 1 GHz+	10 KHz to 1 GHz+	10 KHz to 1 GHz}+	10 KHz to 1 GHz+	Good (H Field) Poor (E Field)	Good (H Field) Poor (E Field)
Temperature Range	+260°C	+200°C	+200°C	+220°C	+200°C	+150°	+200°	+200°	+175°	+260°
Pull Strength*	150 Lbs. minimum	125 Lbs. minimum	125 Lbs. minimum	150 Lbs. minimum	125 Lbs. minimum	125 Lbs.	125 Lbs.	125 Lbs.	175 Lbs.	225 Lbs.
Corrosion Resistance Rating	500 Hours Salt Spray	500 Hours Salt Spray	500 Hours Salt Spray	500 Hours Salt Spray	500 Hours Salt Spray	48 Hours Salt Spray	48 Hours Salt Spray	500 Hours Salt Spray	96 Hours Salt Spray	1000 Hours Salt Spray
Abrasion Resistance	Good	Good	Good	Good	Good	Good	Fair	Good	Good	Very Good
Material Specification	ASTM A580	ASTM A580/ ASTM B355	ASTM A580/ ASTM B355	ZYLON AS	ZYLON AS ASTM B355	ASTM B33	ASTM B298	ASTM B355	ASTM B520	QQ-W-423/ ASTM A580

* Values are based on .500 Dia. Braid



INDUSTRY STANDARD · NON-METALLIC

Bulk tubular expandable braid for wire harness protection

non-metallic braid selection guide



Principal Selection Criteria	General Duty / Abrasion Resistance					Economy		Temperature Tolerance		Fire Resistance	
Braid Part Number and Material Construction	 102-060 Monofilament FEP	 102-001 · 102-002 Monofilament PET Type FR	 102-020 thru -023 Monofilament Halar®	 103-013 · 103-080 Yarn, Nomex®	 102-080 Monofilament Ryton Type R-7	 102-073 Yarn Dacron®	 102-072 Yarn Nylon	 102-051 Monofilament PEEK	 102-040 thru -043, 103-062, 103-106 Yarn Bonded and Unbonded, Nomex®	 100-022 Yarn PTFE-Glass	 102-071 Yarn, Kevlar®
Halogen-Free	NO		NO							NO	
Temperature Range	-55°C to +200°C	-55°C to +125°C	-65°C to +150°C	-55°C to +200°C	-65°C to +180°C	-62°C to +125°C	-20° to +170°	-65°C to +260°C	-60°C to +240°C	-204°C to +482°C	-73°C to +160°C
Tensile Strength (PSI) Yield	3300	50,000	7000	90,000	19,000	10,000	12,400	13,000	90,000	450,000	400,000
Elongation Percentage	50%	20%	15%	25%	40%	12%	20%	38%	25%	5%	3.6%
Chemical Resistance	Excellent	Good	Excellent	Excellent	Excellent	Good	Excellent	Excellent	Excellent (Unbonded) Outstanding (Bonded)	Excellent	Excellent
Abrasion Resistance	Good	Good	Excellent	Good	Excellent	Fair	Excellent	Excellent	Good (Unbonded) Excellent (Bonded)	Excellent	Good
Weight / Duty (specific gravity)	Heavy (2.17)	Medium (1.38)	Medium (1.68)	Medium (1.58)	Light (1.25)	Medium (1.38)	Light (1.14)	Light (1.3)	Medium (1.58)	Heavy (2.5)	Medium (1.44)
Flammability	Very Low	Flammable Self-Extinguishing	Very Low	Will Not Melt	Very Low	Flammable	Flammable	Very Low	Will Not Melt, Self-Extinguishing	Will Not Burn	Will Not Melt

* Values are based on .500 Dia. Braid. DuPont™ Nomex® and Kevlar® are trademarks or registered trademarks of E.I. duPont de Nemours and Company.

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