

# ArmorLite™ EMI Shielding

## Glenair Stainless Steel ArmorLite™ EMI/RFI Micro-Filament Shielding Saves Weight (and Money!) Every Time You Fly

ArmorLite™ is a highly conductive, lightweight nickel plated micro-filament stainless steel EMI braid. It offers an array of benefits including improved flexibility compared to standard plated copper braid, enhanced EMI/RFI electrical performance, and significant cost savings from reduced fuel consumption due to its reduced weight compared to conventional braided shielding. ArmorLite is ideally suited for high-temperature applications where weight reduction is a principal design requirement, but high-heat prevents the use of metal clad thermoplastic shielding such as Glenair AmberStrand.

### Product Series

**103** - Braided Shielding

### Dash Number

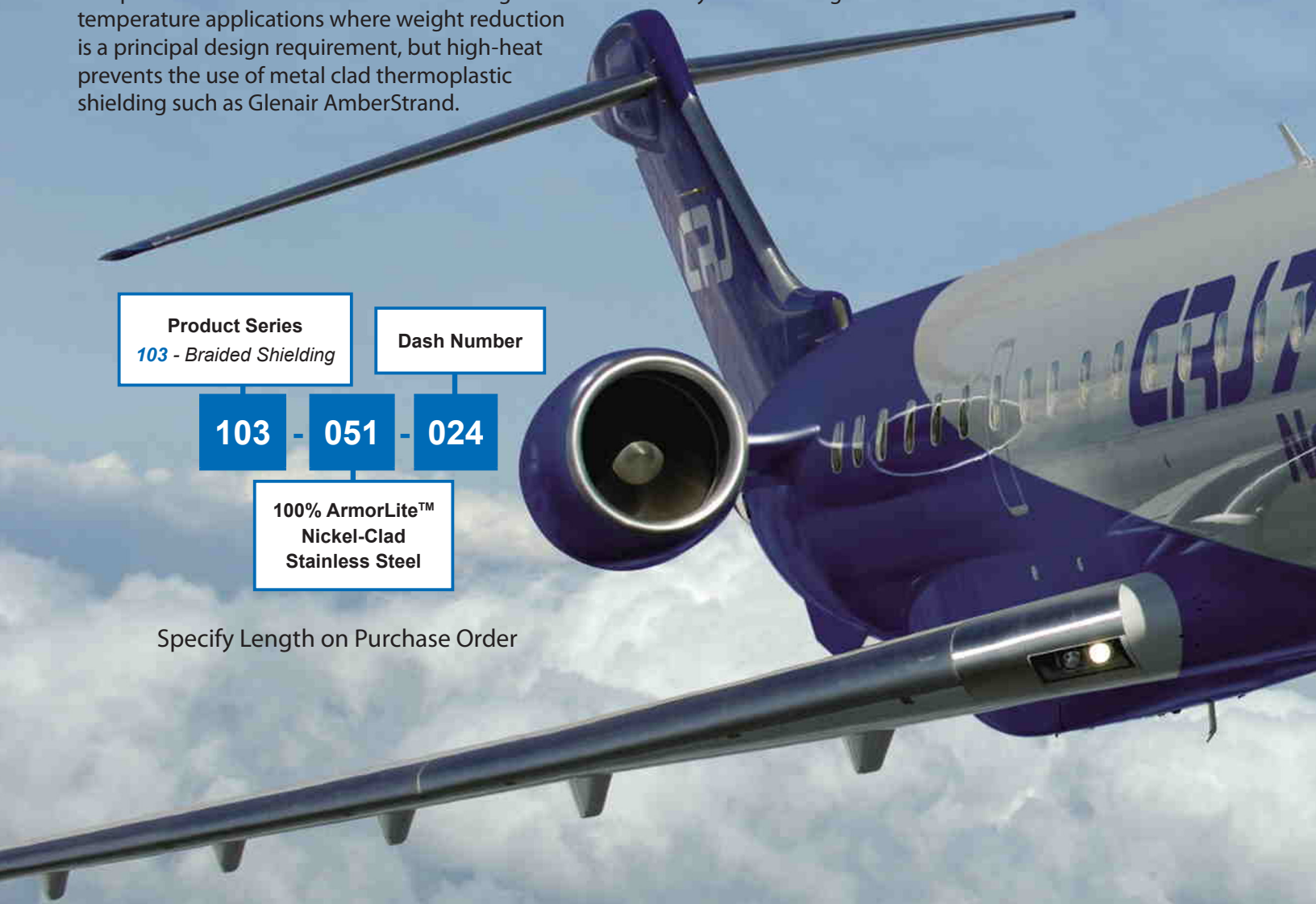
**103**

**- 051**

**- 024**

**100% ArmorLite™  
Nickel-Clad  
Stainless Steel**

Specify Length on Purchase Order



## PRODUCT FEATURES

- ◆ Improved flexibility and flexure characteristics when compared to standard QQB575/A-A-59569 plated copper braid
- ◆ Enhanced EMI/RFI electrical performance when compared to plated non-metallic braid
- ◆ 90% Minimum optical coverage for optimum EMI shielding effectiveness and transfer impedance
- ◆ Lower in cost when compared to plated non-metallic EMI braid
- ◆ Available in braid sizes (nom. ID) from .062 to 2.0 inches
- ◆ 60-70% lighter than standard nickel plated copper braid
- ◆ Highly resistant to high temperatures





### 100% ArmorLite Nickel Plated 103-051 Specification

Tensile Strength	220,000 psi (min.)	ISO 37
Ultimate Elongation	2.5% (min)	ISO 37
Operating Temperature	-80°C to +260°C	85% Shielding effectiveness 1000 hours
Specific Gravity	8.2cm <sup>3</sup> (max.)	ISO 1183
Thermal Cycling	No adverse effects in visual inspection or resistance after 50 cycles	-80°C to +260°C
Lightning Current	Glenair Qual. Test Report	ANSI/EIA-364-75-1977 Wave Form 5B
Surface Transfer Impedance	Glenair Qual. Test Report	IEC 600096-1, Amendment 2
Vertical Flammability	Self extinguishing ≤ 2 sec Burn length 0.1 in max Dripping 0.0 seconds. Exceeds Specification	14 CFR part 25.853 (a) AMdT25-116 Appendix F Part I (a) (1) (ii)
Mass Loss and Collected Volatile Condensable Materials	1.0% max. mass; .10% max CVCM	ASTM E-595

Flex Test 50,000 cycles	No tearing or visible damage	90° - 120° bend
Salt Spray 500 hrs.	DC Resistance IAW AS85049 .5 milliohm; No evidence of base metal on braid	ASTM B117-03 Sodium Chloride 5%
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)
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 Base 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)

### 103-051 Fluid Test Resistance

Test results, Mil-Std 810F Method 504 (modified), for all Substances Listed Below:  
No fraying, DC resistance within limits (AS85049 paragraph 4.6.3)

Lubricating Oil Mil-L-23699 8 hrs @ 150°C, followed by 72 hrs @ 65°C  
Isopropyl Alcohol 8 hrs @ 50°C, followed by 72 hrs @ 65°C  
Cleaner Fluid Mil-C-85570 8 hrs @ 23°C, followed by 72 hrs @ 65°C  
De-Icer Fluid AMS-1432 8 hrs @ 23°C, followed by 72 hrs @ 65°C  
Fire Extinguishing Foam 8 hrs @ 23°C, followed by 72 hrs @ 65°C  
R-134 Refrigerant 8 hrs @ 23°C, followed by 72 hrs @ 65°C

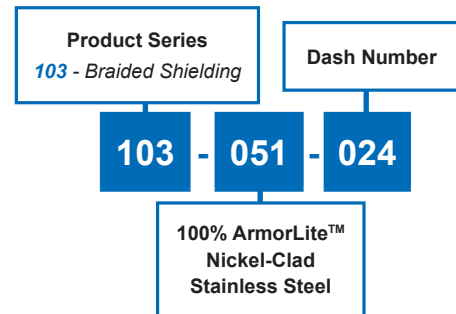


**103-051**  
**ArmorLite™ EMI/RFI**  
**Lightweight Stainless Steel Braided Shielding (100%)**

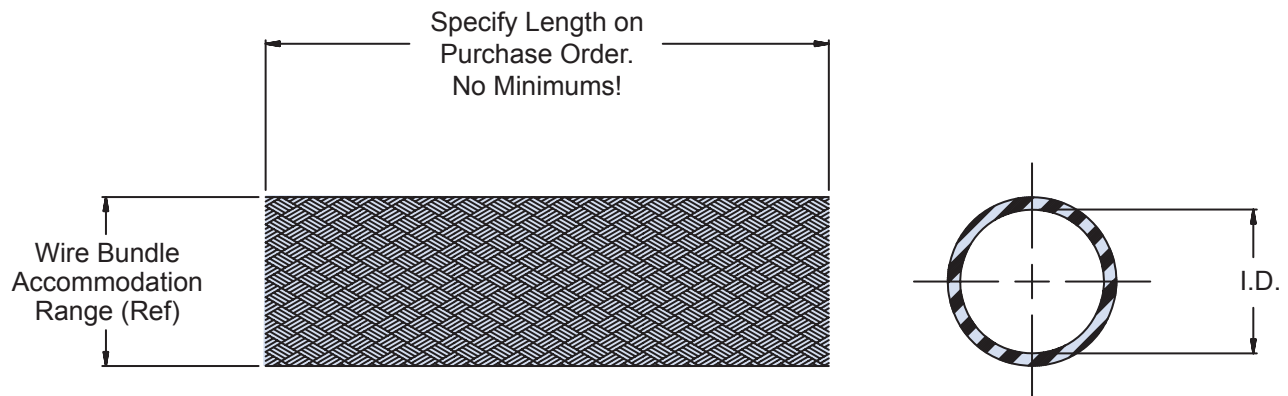


**TABLE I**

Dash Number	Nominal I.D. (Ref.)	Ref. Wire Bundle Range	Approximate Grams Per Foot
002	.062 (1.6)	.040 (1.0)	.9
		.075 (1.9)	
004	.125 (3.2)	.093 (2.4)	1.2
		.140 (3.5)	
008	.250 (6.4)	.125 (3.2)	1.9
		.312 (7.9)	
012	.375 (9.5)	.250 (6.4)	2.8
		.406 (10.3)	
016	.500 (12.7)	.375 (9.5)	4.4
		.560 (14.2)	
020	.625 (15.9)	.375 (9.5)	4.5
		.700 (17.8)	
024	.750 (19.1)	.500 (12.7)	7.6
		.800 (20.3)	
032	1.000 (25.4)	.780 (19.8)	11.6
		1.100 (27.9)	
040	1.250 (31.8)	.938 (23.8)	12.9
		1.312 (33.3)	
048	1.500 (38.1)	1.187 (30.1)	16.7
		1.590 (40.4)	
064	2.000 (50.8)	1.312 (33.3)	22.8
		2.090 (53.1)	



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**APPLICATION NOTES**

1. Marking - Label individual packages.
2. Material - Nickel Clad/Stainless Steel, silver color. Braid angle all sizes 40° - 50°.
3. ArmorLite™ is made from microCLAD® nickel-plated stainless steel.
4. Metric dimensions (mm) are in parentheses and for reference only.