

LIGHTWEIGHT, FLEXIBLE

ArmorLite™ Microfilament Braid for EMI/RFI Shielding Applications



Aircraft utilization study

ARMORLITE™ AIRCRAFT UTILIZATION ANALYSIS

Comparison of ArmorLite® lightweight microfilament braid to standard A-A-59569 Ni/Cu braid



ArmorLite™ lightweight EMI/RFI braided shielding is ideally suited for weight reduction efforts in Electrical Wire Interconnect Systems in aerospace applications

Length and Weight of NiCu Braid in Typical Commercial Aircraft			
Diameter (in)	Weight (Lb/ft)	Length (in)	weight (Lb)
0 - 0.25	0.02	12564.8	21.08
0.25 - 0.5	0.05	5259.3	21.17
0.5 - 0.75	0.07	1212.6	7.12
0.75 - 1.0	0.14	1437.4	16.88
1.0 - 1.5	0.18	467	7.05
Total weight			73.3

Weight Savings Using ArmorLite™ (Equivalent Lengths)				
Diameter (in)	Weight (Lb/ft)	Length (in)	Length in feet	weight (Lb)
0 - 0.25	.00507	12564.8	1047.07	5.309
0.25 - 0.5	.0097	5259.3	438.28	4.251
0.5 - 0.75	.0178	1212.6	101.05	1.737
0.75 - 1.0	.0256	1437.4	119.78	3.063
1.0 - 1.5	.0368	467	38.92	1.434
Total weight				15.794



Using ArmorLite™ in place of standard nickel-copper braid saves 54.6 pounds per system—up to 78% weight savings!

Aircraft Zone Typical Braid Utilization (length in inches)								
L Wing	R Wing	Fwd Belly	Aft Belly	HYD Bay	Aft Barrel	Tail	V/H Stab	Totals
1852.2	1852.2	0	2811.4	168.2	2015.2	2480.6	1385	12564.8
434.8	434.8	511.6	1034.6	257.4	506.2	958.2	1121.7	5259.3
0	0	260.9	223	0	184.2	392.4	152.1	1212.6
0	0	77.2	0	0	1198	162.2	0	1437.4
0	0	0	0	0	446	21	0	467