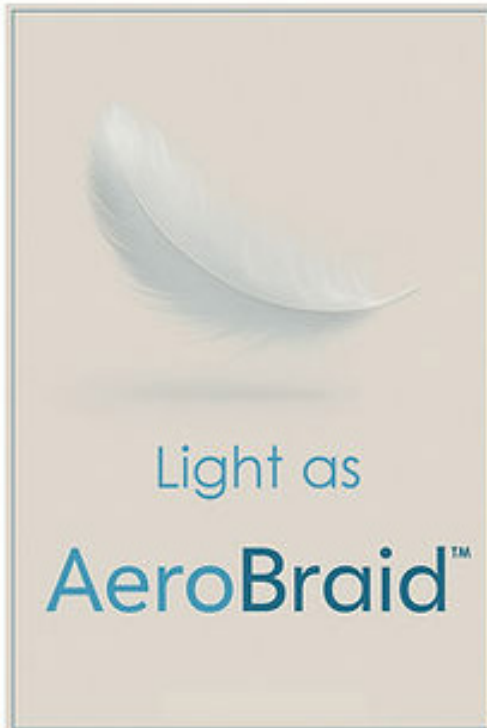


AeroBraid™

ULTRA LIGHT BRAID



%75
Lighter
in weight



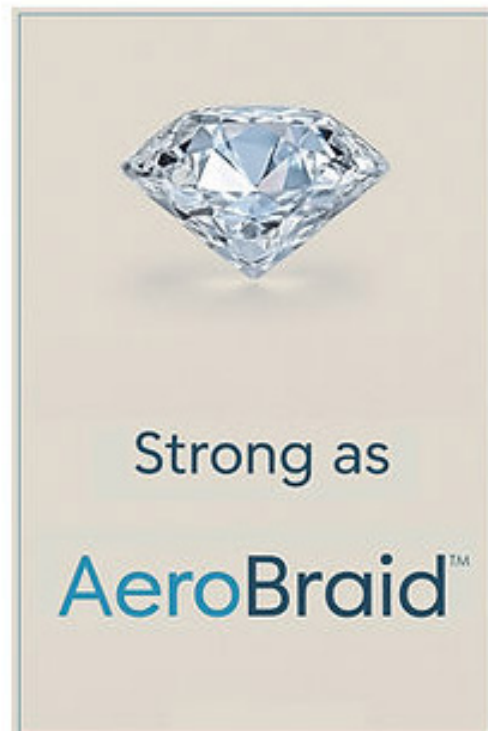
Properties:

- **75% lighter in weight** than 30 AWG stranded copper wire
- **4.8 times** greater break strength than 30 AWG stranded copper wire
- **Can be soldered.**
- Engineered for effortless **crimping.**

Key Advantages

- **Lightweight:** Reduces payload and increases functional capacity in satellite and aircraft systems.
- **High Strength:** Robust enough to replace fragile, small-gauge copper wires.
- **EMI Shielding Performance:** Provides shielding performance equivalent to or better than conventional copper braids.
- **Flexibility:** Easily integrates into cable designs with natural textile movement.
- **Thermal Stability:** Low thermal expansion ensures durability under harsh environmental conditions.

4.8 X
greater
break strength



AC-4900 Series Ultra Light Braid - AeroBraid™

- **High-Performance Multifilament Yarn** is a metal-clad special polymer fiber that stands out with its exceptional conductivity and mechanical strength.
- It is made of multifilament yarn material. Thanks to its core made of liquid crystal polymer.
- Designed to have **excellent thermal stability, strength, and cutresistance**, fiber is optimized for use as a shielding braid, bare wire or coated with insulation material.
- These shields are **very lightweight** compared to others made from similar copper materials.
- AeroBraid is REACH and RoHS compliant.

Fiber	Fiber	
Material	Liquid Crystal Polymer	
Filament count	40	
Outer Metallization Layers	Nickel	
Properties	Imperial	Metric
% Metal by Weight	80 %	80 %
Weight	0.07 lbs/1000ft *	0.11 g/m *
DC Resistance	1.0 Ω/ft *	3.3 Ω/m *
Breaking Load	10 lbf	4.5 kg
Elongation	2.0 %	2.0 %
Operation Temperature	-100 to 200 °C	-100 to 200 °C

* According to the single wire of the semi-finished product.



ULTRA
LIGHT
ULTRA
STRONG

Application Areas

- **Drone** technologies including UAV, UCAV, sUAV
- Unmanned ground vehicles - UGV
- Unmanned marine vehicles - USV, ROV
- Unmanned submarine vehicles - UUV, AUV
- **Satellites** internal wiring systems
- Electronic textiles (e-textiles)
- **Aerospace** technologies
- Signal and hybrid wire assemblies
- **RF / Microwave** cable shielding

AeroBraid™ (Ultra Light Braid)

Product Code	Nominal I.D. (mm)	Wire Bundle Range (mm)		Approx. Weight (grams/m)	Approx. Resist. (mΩ/m)
		Min.	Max.		
AC-4901-0062	1,6	1,0	2,2	2,20	229,2
AC-4901-0125	3,2	2,3	3,8	4,95	101,9
AC-4901-0250	6,4	3,4	7,9	6,60	76,4
AC-4901-0375	9,5	6,4	11,0	9,90	50,9
AC-4901-0500	12,7	9,6	14,3	13,20	38,2
AC-4901-0625	15,9	11,0	17,8	19,80	25,5
AC-4901-0750	19,1	12,7	21,1	26,40	19,1
AC-4901-1000	25,4	19,8	27,9	33,00	15,3
AC-4901-1250	31,8	24,2	33,3	39,60	12,7
AC-4901-1500	38,1	30,1	40,4	46,20	10,9
AC-4901-2000	50,8	33,3	53,2	65,99	7,6

