

METAL COATED SILICA FIBERS

Metal-Coated Silica/Silica Fibers are the latest technology to enable fiber optics to be used in some of the most harsh and extreme environments known.

Through a proprietary manufacturing process these fibers have metal coatings applied to the silica cladding during the drawing of the fiber. This creates a molecular bond between the metal and the fiber.

This metalized fiber technology has the strongest adhesion in the industry. It creates a hermetically sealed fiber and can withstand the highest temperatures of any fiber. They are solderable.

	Tin	CU	Al
1. Coating material			
2. Coating thickness, um	15 to 50	15 to 50	15 to 150
3. Fiber Diameter, um	100 to 400	100 to 400	100 to 2500
4. Tensile strength (short gauge), GPa	6 to 9	2 to 3	3.5 to 6
5. Two point bending strength, GPa	>10	>10	>10
6. Static fatigue parameter n	>100	>100	>100
7. Min operating temp, Deg C		-270	-270
8. Max operating temp, Deg C	230	600*	400
9. Additional micro bend losses, dB/km	<1	0 to 30	0 to 30

*Temperature of up to 750 deg C can be achieved if a Cu + Ni double layer is applied

