

Technical Data Sheet

Gold Wire and -Ribbon

Ultrasonic bonding Grade



Chemical Composition:

Item	Amount	Item	Amount
Gold (Au)	99.99% Min.	Iron (Fe)	< 20 ppm
Berillium (Be)	3 – 10 ppm	Magnesium (Mg)	< 20 ppm
Copper (Cu)	< 30 ppm	Silver (Ag)	< 30 ppm
Total impurity all elements	100 ppm maximum		

Physical Properties:

Property	Amount	Property	Amount
Density	19.34 g/cm ³	Thermal Conductivity @20°C	315 W/m-K
Melting Point	1063 °C	Electrical Conductivity @20°C	75 % IACS
Electrical Resistivity @20°C	2.3 μ Ω cm	Fusing Current 10mm length X 25 μ (.001 In)	.52 Amps

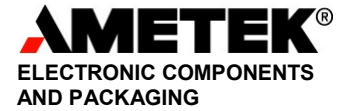
Mechanical Properties - Wire:

Diameter (mils)	0.7	0.8	0.9	1.0	1.3	1.5	1.7	1.8	2.0	3.0
Tensile (g)	3-10	4-13	5-16	6-20	10-45	13-50	15-60	20-70	25-85	50-180
Elongation (%)	2-6	2-7	2-8	2-8	2-10	2-12	2-12	2-12	2-15	2-20

Mechanical Properties - Ribbon: Hard

	Width (mils)	Thickness (mils)	Elongation (%)	Tensile (g)	Tolerance (± %)*	
					Width	Thickness
Rolled	2-10	.25-2	0.5-3.0	12-600	5-3	20-10
Rolled/Slit	10-25	.5-3	0.5-4.0	80-1500	5-4	20-10
Slit	25-100	.5-3	1.0-6.0	100 min.	5	20-10

*: Lowest width/thickness dimension has the highest Tolerance (%)



Mechanical Properties - Ribbon: Stress Relieved

	Width (mils)	Thickness (mils)	Elongation (%)	Tensile (g)	Tolerance (\pm %)*	
					Width	Thickness
Rolled	2-10	.25-2	1.0-4.0	10-500	5-3	20-10
Rolled/Slit	10-25	.5-3	1.0-5.0	75-1000	5-4	20-10
Slit	25-100	.5-3	1.0-7.0	80 min.	5	20-10

*: Lowest width/thickness dimension has the highest Tolerance (%)

Mechanical Properties - Ribbon: Annealed

	Width (mils)	Thickness (mils)	Elongation (%)	Tensile (g)	Tolerance (\pm %)*	
					Width	Thickness
Rolled	2-10	.25-2	4.0-30	7-300	5-3	20-10
Rolled/Slit	10-25	.5-3	8.0-50	50-700	5-4	20-10
Slit	25-100	.5-3	1.0-6.0	50 min.	5	20-10

*: Lowest width/thickness dimension has the highest Tolerance (%)

Note: The above is the general specification; the actual will follow customer requirements. Other diameters available upon request.