





## C18661 Copper-Magnesium (CMG1) Alloy Wire

Copper-magnesium is a solid solution alloy providing high strength with nominal reduction in conductivity relative to copper. CMG1 is one of the alloys covered by the broad CDA alloy designation C18661 for copper-magnesium. CMG1 combines high electrical conductivity with good tensile strength, excellent solderability and plateability. Applications include connectors, semiconductor pins, catenary trolley cables and conductors. There are no ASTM developed temper ranges for this alloy and the listed values are the recommendations of Fisk Alloy Wire.

Mechanical Properties				
 Round Wire				
TEMPER NAME	TEMPER CODE	TENSILE STRENGTH (ksi)		MILL LIMITS
		MIN	MAX	
Annealed		35	46	.0010 - .1285 inch
1/2 Hard	H02	55	70	
Hard	H04	75	90	
Spring	H08	90		
 Square Wire				
TEMPER NAME	TEMPER CODE	TENSILE STRENGTH (ksi)		MILL LIMITS
		MIN	MAX	
Annealed		35	46	.0100 - .0808 inch
1/2 Hard	H02	55	70	
Hard	H04	75	90	
Spring	H08	90		
Physical Properties				
Melting Point (Liquidis)		1958°F		
Melting Point (Solidus)		1850°F		
Density		0.321 lbs/cu in		
Electrical Resistivity (Annealed)		14.1 ?(cir mil/ft) @ 68°F		
Electrical Conductivity (Annealed)		74% IACS @ 68°F		
Coefficient of Thermal Expansion		0.0000098°F (68-572°F)		
Modulus of Elasticity (Tension)		18125 ksi		

**Custom constructions are available, please contact the sales department**

The information provided on this page is for reference purposes only.

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