



## C519 Phosphor Bronze 6% Alloy Wire

A phosphor bronze, alloy C519 has 6% nominal tin producing higher mechanical strengths with a slight decrease in electrical conductivity when compared to C510 phosphor bronze. Often functionally interchangeable with C510 which predominates in North America, alloy C519 is generally used in Europe.

Mechanical Properties				
Round Wire				
TEMPER NAME	TEMPER CODE	TENSILE STRENGTH (ksi)		MILL LIMITS
		MIN	MAX	
Soft	R370	54	68	.0010 - .1285 inch
1/4 Hard	R460	67	81	
1/2 Hard	R560	81	97	
3/4 Hard	R670	97	115	
Hard	R790	115	138	
Spring	R950	138	---	
Square Wire				
TEMPER NAME	TEMPER CODE	TENSILE STRENGTH (ksi)		MILL LIMITS
		MIN	MAX	
Soft	R370	54	68	.0100 - .0808 inch
1/4 Hard	R460	67	81	
1/2 Hard	R560	81	97	
3/4 Hard	R670	97	115	
Hard	R790	115	138	
Spring	R950	138	---	
Rolled Flat				
TEMPER NAME	TEMPER CODE	TENSILE STRENGTH (ksi)		MILL LIMITS
		MIN	MAX	
Soft	O60	48	63	Thickness: .0100 - .0500 inch Width: .0150 - .2500 inch
1/2 Hard	H02	64	79	
Hard	H04	80	96	
Physical Properties				
Melting Point (Liquidus)		1900°F		
Melting Point (Solidus)		1700°F		
Density		0.319 lbs/cu in		
Electrical Resistivity (Annealed)		74 ?(cir mil/ft) @ 68°F		
Electrical Conductivity (Age Hardened)		14% IACS @ 68°F		
Thermal Conductivity (Solutionized-Aged)		38 Btu ft/sq ft hr °F @ 68°F		
Coefficient of Thermal Expansion		0.00001°F (68-572°F)		
Modulus of Elasticity (Tension)		16000 ksi		
Modulus of Rigidity		6000 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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