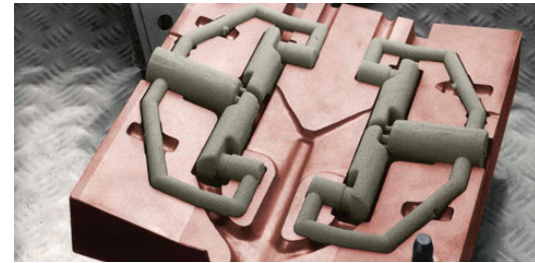
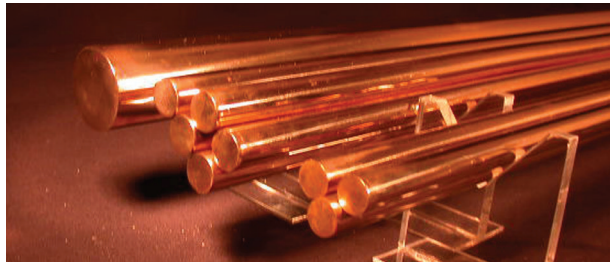


C18000 BERYLLIUM FREE COPPER

OFFERED IN SOLID BARS



C18000 Copper Chromium Nickel Silicon is a Beryllium Free alloy alternative to C17500 & C17510 (Beryllium Copper). This alloy exhibits good electrical and thermal conductivity, with moderate strength and hardness. Typical applications include resistance welding (RWMA Class 3) electrodes, plastic injection and blow mold cores and cavities.

TYPICAL USES

Industrial

Resistance Welding Tips, Resistance Welding Wheels and Fixtures, Stud Welding Collets and Tips, Heat Sink Inserts in Steel Plastic Molds, Cores, Core & Ejector Pins for Injection Molds, Plugger Tips for Metal Die Casting Machines, Welding Dies for Wire and Flash, Sprue Bushing, Cavities for Injection Molds, Blow Pins, Pinch Offs, Mold Cavities for Blow Molds, Mold Cavities for Permanent Molds

SIZES AVAILABLE

Solid Bar1/2" - 21" diameter

Other forms and shapes also available.



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C18000 BERYLLIUM FREE COPPER

Chemical Composition, Mechanical Properties, Physical Properties

CHEMICAL COMPOSITION

	Cu ⁽¹⁾	Cr	Fe	Ni ⁽²⁾	Si
min/max	Rem	.10 - .8	.15	1.8 - 3.0	.40 - .8
nominal	-	.45	-	2.4	.6

MECHANICAL PROPERTIES

TENSILE STRENGTH (KSI) MIN	YIELD STRENGTH (KSI) MIN	ELONGATION IN HD MIN	ROCKWELL HARDNESS (B)
95	75	15%	94

PHYSICAL PROPERTIES

Melting Point - Solidus °F.....	1900
Density lb/cu in @ 68 °F.....	0.318
Electrical Conductivity % IACS @ 68°F.....	48
Thermal Conductivity Btu/ sq ft/ ft hr/ °F at 68°F.....	130
Coefficient of Thermal Expansion 10 ⁻⁶ per °F (68-572 °F).....	9.72
Specific Heat Capacity Btu/lb/ °F @ 68 °F.....	0.095
Modulus of Elasticity in Tension ksi.....	18500

AVIVA Color Code



GREEN

The values listed on this document represent reasonable approximations suitable for general engineering use. Due to commercial variations in composition and to manufacturing limitations, they should not be used for specification purposes. See applicable A.S.T.M. Specification references.

www.avivametals.com

www.avivametals.eu

USA / Canadian Sales
+1 (713) 869-9600
sales@avivametals.com



European Sales
+33 494 109 386
info@avivametals.com



Other Territories
trading@avivametals.com