



PROFESSIONAL PLASTICS

Beryllium Copper Alloy 25 Strip; 1/2H (TD02) Temper (UNS C17200)

Treatment required for max strength: as supplied
Formability Ratio, 90° Bend, Radius/Thickness (Good Way): 0.5
Formability Ratio (bad Way): 1
Superficial Hardness: 30T 74-79
ASTM B-194, QQ-C-533

Physical Properties	Metric	English	Comments
Density	8.36 g/cc	0.302 lb/in ³	
Mechanical Properties	Metric	English	Comments
Hardness, Rockwell B	88 - 96	88 - 96	
Hardness, Vickers	176 - 216	176 - 216	
Tensile Strength, Ultimate	580 - 690 MPa	84100 - 100000 psi	
Tensile Strength, Yield	510 - 660 MPa	74000 - 95700 psi	
Elongation at Break	12 - 30 %	12 - 30 %	
Modulus of Elasticity	131 GPa	19000 ksi	
Fatigue Strength	220 - 260 MPa @# of Cycles 1.00e+8	31900 - 37700 psi @# of Cycles 1.00e+8	Reverse Bending (R=1)
Electrical Properties	Metric	English	Comments
Electrical Resistivity	0.00000910 - 0.0000115 ohm-cm	0.00000910 - 0.0000115 ohm-cm	15-19% IACS Conductivity
Thermal Properties	Metric	English	Comments
CTE, linear	17.0 µm/m-°C @Temperature 20.0 - 200 °C	9.44 µin/in-°F @Temperature 68.0 - 392 °F	
Thermal Conductivity	105 W/m-K	729 BTU-in/hr-ft ² -°F	
Melting Point	870 - 980 °C	1600 - 1800 °F	
Solidus	870 °C	1600 °F	
Liquidus	980 °C	1800 °F	
Component Elements Properties	Metric	English	Comments
Beryllium, Be	1.8 - 2.0 %	1.8 - 2.0 %	
Co + Ni	>= 0.20 %	>= 0.20 %	
Co + Ni + Fe	<= 0.60 %	<= 0.60 %	
Copper, Cu	98 %	98 %	as balance
Lead, Pb	<= 0.020 %	<= 0.020 %	

Some of the values displayed above may have been converted from their original units and/or rounded in order to display the information in a consistent format. Users requiring more precise data for scientific or engineering calculations can click on the property value to see the original value as well as raw conversions to equivalent units. We advise that you only use the original value or one of its raw conversions in your calculations to minimize rounding error.

PROFESSIONAL PLASTICS, INC.

www.professionalplastics.com

sales@proplas.com

USA (888) 995-7767 – Singapore +65 6266-6193 – 台湾 Taiwan +886 (3) 5357850