

MatWeb, The Online Materials Database**Brush Wellman Beryllium Copper Alloy 25 Wire; 1/4H (TD01) Temper;
1.3-12.7 mm Diameter (UNS C17200)****Subcategory:** Beryllium Alloy; Copper Alloy; Metal; Nonferrous Metal**Key Words:** ASTM B-197, QQ-C-530, AMS 4725

Component	Wt. %
Be	1.8 - 2
Co + Ni	Min 0.2
Co + Ni + Fe	Max 0.6
Cu	98
Pb	Max 0.02

Material Notes:

Copper content above calculated as remainder.

Treatment required for max strength: as supplied

Tabulated properties apply to products after age hardening. Information supplied by Brush Wellman.

Physical Properties **Metric** **English** **Comments**

Density	8.36 g/cc	0.302 lb/in ³	
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Mechanical Properties

Tensile Strength, Ultimate	620 - 800 MPa	89900 - 116000 psi	
Tensile Strength, Yield	510 - 730 MPa	74000 - 106000 psi	
Elongation at Break	3 - 25 %	3 - 25 %	
Modulus of Elasticity	131 GPa	19000 ksi	
Machinability	20 %	20 %	

Electrical Properties

Electrical Resistivity	9.1e-006 - 1.15e-005 ohm-cm	9.1e-006 - 1.15e-005 ohm-cm	15-19% IACS Conductivity
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Thermal Properties

CTE, linear 20°C	17 $\mu\text{m}/\text{m}\cdot^\circ\text{C}$	9.44 $\mu\text{in}/\text{in}\cdot^\circ\text{F}$	20-200°C
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	

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