

Materion Beryllium Copper Alloy 174 Strip; 1/2HT (TH02) Temper (UNS C17410)

Category : Metal , Nonferrous Metal , Beryllium Alloy , Copper Alloy

Material Notes:

Treatment required for max strength: Mill Hardened Stress Relaxation-% Stress Remaining after 1000 hrs @ 100°C: 95% Stress Relaxation after 1000 hrs @ 200°C: 67% Formability Ratio, 90° Bend, Radius/Thickness (Good Way): 0.5 Formability Ratio (bad Way): 0.5 Superficial Hardness: 30T 75.5-81.9 Tabulated properties apply to products after age hardening. Information supplied by Brush Wellman. Brush Engineered Materials Inc. changed its name to Materion Corporation in March 2011.

Order this product through the following link:

http://www.lookpolymers.com/polymer_Materion-Beryllium-Copper-Alloy-174-Strip-12HT-TH02-Temper-UNS-C17410.php

Physical Properties	Metric	English	Comments
Density	8.80 g/cc	0.318 lb/in ³	

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell B	89 - 98	89 - 98	
Hardness, Vickers	180 - 230	180 - 230	
Tensile Strength, Ultimate	655 - 790 MPa	95000 - 115000 psi	
Tensile Strength, Yield	550 - 690 MPa	79800 - 100000 psi	
Elongation at Break	10 - 20 %	10 - 20 %	
Modulus of Elasticity	138 GPa	20000 ksi	
Fatigue Strength	280 - 310 MPa @# of Cycles 1.00e+8	40600 - 45000 psi @# of Cycles 1.00e+8	Reverse Bending (R=1)

Thermal Properties	Metric	English	Comments
CTE, linear	18.0 Åµm/m-Å°C	10.0 Åµin/in-Å°F	
	@Temperature 20.0 - 200 Å°C	@Temperature 68.0 - 392 Å°F	
Thermal Conductivity	230 W/m-K	1600 BTU-in/hr-ftÅ²-Å°F	
Melting Point	1030 - 1070 Å°C	1890 - 1960 Å°F	
Solidus	1030 Å°C	1890 Å°F	
Liquidus	1070 Å°C	1960 Å°F	

Component Elements Properties	Metric	English	Comments
-------------------------------	--------	---------	----------

Component Elements Properties	Metric	English	Comments
Cobalt, Co	0.35 - 0.60 %	0.35 - 0.60 %	
Copper, Cu	99 %	99 %	as balance

Electrical Properties	Metric	English	Comments
Electrical Resistivity	0.00000290 - 0.00000380 ohm-cm	0.00000290 - 0.00000380 ohm-cm	45-60% IACS Conductivity

Contact Songhan Plastic Technology Co.,Ltd.

Website : www.lookpolymers.com

Email : sales@lookpolymers.com

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China