

## BrushForm® 96 Mill Hardened Tempers

Materion Brush Performance Alloys' BrushForm® 96 Strip is a high-performance, heat treatable spinodal copper nickel tin alloy designed to provide optimal formability and strength characteristics in conductive spring applications such as electronic connectors, switches, and sensors. It is available in both pre-heat treated (mill hardened) and heat treatable (age hardenable) forms.

### CHEMICAL COMPOSITION (weight percent)

Alloy	Nickel	Tin	Copper
BrushForm® 96	8.5 - 9.5	5.5 - 6.5	Balance

### PHYSICAL PROPERTIES\*

Elastic Modulus	Density	Typical Electrical Conductivity	Coefficient of Thermal Expansion	Relative Magnetic Permeability	Poisson's Ratio
18.0 x 10 <sup>6</sup> psi 124 GPa	0.322 lb/in <sup>3</sup> 8.91 g/cm <sup>3</sup>	10% IACS 5.8 MS/m	9.0 ppm/°F 16.2 ppm/°C	<1.01	0.3

### MECHANICAL PROPERTIES\*

Temper	0.2% Offset Yield Strength ksi (MPa)	Ultimate Tensile Strength ksi (Mpa)	Minimum Elongation (%) *	Hardness (HV)	Minimum 90° Bend Formability R/T Ratio	
					Good Way (Longitudinal)	Bad Way (Transverse)
TM00	55 - 85 (379 - 586)	90 - 110 (621 - 758)	16	180 - 280	0.2	0.2
TM02	70 - 100 (483 - 689)	100 - 120 (689 - 827)	12	200 - 300	0.5	0.5
TM04	85 - 115 (586 - 793)	110 - 130 (758 - 896)	8	230 - 300	1.0	1.0
TM06	90 - 130 (621 - 896)	120 - 140 (827 - 965)	4	240 - 360	2.5	3.0
TM08	100 - 140 (689 - 965)	130 - 160 (896 - 1103)	-	260 - 380	5.0	7.0

\*Percent elongation valid for strip 0.004" (0.10 mm) and thicker.

### STANDARD AVAILABILITY

Mill Hardened Tempered Strip: 0.0015" (0.04mm) – 0.020" (0.5mm) gauge

### SPECIFICATIONS

UNS C72700, ASTM B740

### RELATED INFORMATION

Additional technical information on BrushForm® 96 strip may be obtained by phoning 800-375-4205. For pricing and availability, phone 800-323-2438, or the local sales number listed on the back of this datasheet.

## TOLERANCES

Strip Thickness (inches)		Standard Thickness Tolerance (inches)	Strip Thickness (mm)		Standard Thickness Tolerance (mm)
Over	Including	Plus or minus	Over	Including	Plus or Minus
	0.0020	0.00010		0.05	0.003
0.0020	0.0040	0.00015	0.05	0.10	0.004
0.0040	0.0060	0.00020	0.10	0.20	0.006
0.0060	0.0090	0.00025	0.20	0.30	0.008
0.0090	0.0130	0.00030	0.30	0.70	0.010
0.0130	0.0260	0.00040	0.70	1.0	0.016
0.0260	0.0370	0.00060	1.0	1.3	0.020
0.0370	0.0500	0.00080	1.3	2.0	0.025
0.0500	0.0750	0.00100			

Additional tolerances are per ASTM B 194. Please specify the exact tolerances that you require when you place your order. Tighter tolerances may be available at additional cost. Please contact your local sales engineer to confirm the requested capability.

### North American Service Centers – Sales Inquiries

For strip ≤0.060" (1.5 mm) thick.  
wire and rod ≤0.5" (12.7 mm) diameter:

#### Elmhurst, IL

TOLL FREE: 800-323-2438  
LOCAL: +(1) 630-832-9650  
FAX: +(1) 630-832-9657

### International Sales Offices

#### CHINA/HONG KONG

TEL: + (852) 2318-1960 / 1907  
[brushalloysHK-info@materion.com](mailto:brushalloysHK-info@materion.com)

#### CHINA/SHANGHAI

TEL: + (86) 21-5237-2328  
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#### GERMANY

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