

BrushForm® 96 Strip Cold Rolled Tempers

Materion 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 ⁶ psi 124 GPa	0.322 lb/in ³ 8.91 g/cm ³	10% IACS 5.8 MS/m	9.0 ppm/°F 16.2 ppm/°C	< 1.01	0.3

MECHANICAL PROPERTIES*

As Rolled Temper Designations for BrushForm 96								
Standard Designation	ASTM Designation	Heat Treatment	0.2% YS ksi (MPa)	UTS ksi (MPa)	Minimum Elongation (%)	Minimum Elongation (%)	Minimum 90° Bend Formability R/T Ratio	
							Good Way (Longitudinal)	Bad Way (Transverse)
A	TB00	Cold Rolled	37 (255)	60 (414)	30	100 - 150	0.0	0.0
1/4H	TD01		53 (365)	75 (517)	16	125 min.	1.1	1.7
1/2H	TD02		67 (461)	85 (586)	8	-	1.5	2.0
H	TD04		88 (607)	100 (689)	3	175 - 275	3.0	6.0
EH	TD08		92 (634)	110 (758)	-	-	-	-
AT	TX00	After 2 hours @ 700°F (375°C)	75 (517)	100 (689)	15	250 - 340	-	-
1/4HT	TS01		90 (621)	115 (793)	10	230 - 330	-	-
1/2HT	1/2HT		100 (689)	125 (862)	6	280 - 330	-	-
HT	TS04		120 (827)	135 (931)	4	300 - 370	-	-

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

STANDARD AVAILABILITY

Cold Rolled Temper Strip: 0.0015" (0.04mm) – 0.020" (0.5mm) gauge

INDUSTRY STANDARDS AND 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 bottom of this page.

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	1.00	0.016
0.0260	0.0370	0.00060	1.00	1.30	0.020
0.0370	0.0500	0.00080	1.30	2.00	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

For bar, tube, plate/sheet > 0.060 " (1.5 mm) thick and
rod > 0.5 " (12.7 mm) diameter:

Warren, MI

TOLL FREE: 800.521.8800

LOCAL: +(1) 586.772.2700

FAX: +(1) 586.772.2472

Disclaimer:

Only the buyer can determine the appropriateness of any processing practice, end-product or application. Materion does not make any warranty regarding its recommendations, the suitability of Materion's product, or its processing suggestions for buyer's end product, application or equipment.

The properties presented on this data sheet are for reference purposes only, intended only to initiate the material selection process. They do not constitute, nor are they intended to constitute, a material specification. Material will be produced to one of the applicable industry standards, if any, listed in the Industry Standards and Specification section.

Actual properties may vary by thickness and/or part number. Please contact your local sales engineer for detailed properties to be used in simulation.

Any properties marked as preliminary are subject to change at any time as the manufacturing process is further refined.

MATERION PERFORMANCE ALLOYS AND COMPOSITES

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Contact Us: <https://materion.com/ContactPAC>

DS-AS-262

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