

BrushForm® 158 Strip - TM16 Temper

Materion's BrushForm® 158 Strip is a high-performance, heat treated spinodal copper nickel tin alloy designed to provide optimal formability and strength characteristics. TM16 provides excellent flatness and stiffness coupled with high resistance to vibration, fatigue and impact loading. This makes it ideal for voice coil motor springs in optical image stabilization systems.

CHEMICAL COMPOSITION (WEIGHT PERCENT)

Alloy	Nickel	Tin	Copper
BrushForm® 158 Strip	14.5 - 15.5	7.5 - 8.5	Balance

PHYSICAL PROPERTIES

Elastic Modulus	Density	Typical Electrical Conductivity	Coefficient of Thermal Expansion	Relative Magnetic Permeability	Poisson's Ratio
128 GPa	9.00 g/cm ³	7% IACS 4 MS/m	16.4 ppm/°C	< 1.01	0.3

MECHANICAL PROPERTIES

Temper	Data Type	0.2% Offset Yield Strength (MPa)	Ultimate Tensile Strength (MPa)	Elongation (%) *	Hardness (HV)
TM16	Specification Range	1365 - 1462	-	1.0 min.	375 - 450
	Design/Engineering Nominal Value	1413	1455	1.5	400

* Percent elongation valid only for strip greater than 0.10 mm thick.

STANDARD AVAILABILITY

Mill Hardened Tempered Strip: 0.025 mm – 0.12mm gauge.

INDUSTRY STANDARDS AND SPECIFICATIONS

UNS C72900, ASTM B740

CONTACT INFORMATION

Technical Service	Properties, application and design assistance, fabrication and processing assistance, etc.	+ (1) 800-375-4205 + (1) 216-692-3108
International Sales World-wide Distribution	US distributors International distributors	

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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