MATERION

Data Sheet

ToughMet® 3 A Strip

Materion's ToughMet 3 A Strip is a high-performance, spinodal copper-nickel-tin alloy designed to provide optimal formability and tribological characteristics when fully heat treated. This material is primarily used in wear-resistant bearings and controlled fragmentation devices.

Chemical Composition (Weight Percent)

Alloy	Nickel	Tin	Copper
ToughMet 3 A Strip	15	8	Balance

Typical Physical Properties

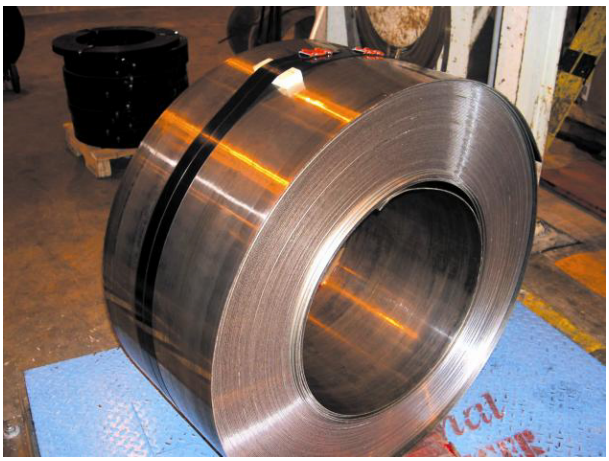
Elastic Modulus	Poisson's Ratio	Electrical Conductivity	Coefficient of Thermal Expansion (20 – 200 °C)	Density	Magnetic Permeability
18.5×10^6 psi 128 kN/mm²	0.3	< 7% IACS < 4 MS/m	9.1×10^{-6} in/in/°F 16.4×10^{-6} m/m/°C	0.325 lb/in³ 9.00 g/cm³	≤ 1.001

Typical Mechanical Properties

0.2% Offset Yield Strength (Typical)		Ultimate Tensile Strength (Typical)		Elongation (Minimum)
ksi	N/mm²	ksi	N/mm²	%
25 - 45	172 - 310	64 - 85	440 - 585	32

Standard Availability

Annealed strip: 0.006" (0.15 mm) to 0.090" (2.23 mm) by up to 12" (300 mm) wide coil.



Industry Standards and Specifications

UNS# C72900

Related Information

Additional technical information on ToughMet 3 A strip may be obtained by phoning +1.800.375.4205. For pricing and availability, phone +1.800.521.8800 for rod >0.5" (12.7 mm) diameter, +1.800.323.2438 for smaller diameter rod, or the number listed on the bottom of this page.

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