



ToughMet® 3 AT110 Temper Plate

ToughMet is Materion Brush Performance Alloys' solution to your severe service material problems. By applying our EquaCast® process, tailored alloying additions and spinodal hardening technology, we have engineered ToughMet to provide attributes beyond those typically found in a high-strength copper alloy.

- Exceptional resistance to corrosion and cavitation
- Outstanding lubricity and durability in demanding applications
- Highly uniform composition in all product forms
- Uniform microstructure in a variety of wrought shapes and sizes

MECHANICAL PROPERTIES

Temper	Yield Strength 0.2% offset (ksi)	Ultimate Tensile Strength (ksi)	Elongation (%)	Hardness (HRC)
T3 AT110	110	125	6	30

Typical minimum values.

PHYSICAL PROPERTIES

Young Modulus	21x 10 ⁶ psi	CTE (70 – 215 °F)	8.9 x 10 ⁻⁶ /°F
Poisson's Ratio	0.33	Density	0.325 lb/in ³
Electrical Conductivity	9% IACS	Fatigue Limit (estimated)	60 ksi at R=-1*
Thermal Conductivity	22 btu/ft/hr/°F	Magnetic Permeability	<1.001

*Fatigue at 10⁶ cycles

ToughMet® 3 AT110 plate is provided with a rolled and heat-treated surface. When ordering, please add the following minimum finishing allowances to the thickness of the finish-machined parts.

Plate Thickness	Finishing Allowance
< 1"	0.13"
1" – 2.99"	0.20"
≥ 3"	0.25"

AVAILABILITY

PLATE THICKNESSES RANGE FROM ¼" TO 4 ¾".

TYPICAL MILL WIDTH = 16".

FOR WIDER PLATE, CONSULT YOUR MATERION BRUSH PERFORMANCE ALLOYS SALES REPRESENTATIVE.

North American Service Centers – Sales Inquiries

For strip, wire and rod under 0.4" (10 mm) diameter

Elmhurst, IL

TOLL FREE: 800.323.2438
LOCAL: +(1) 630.832.9650
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For plate, tube, bar, and rod 0.4" (10 mm) diameter and over
Warren, MI

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To obtain a complete list of Materion's global distributor/agent network, visit us online at www.materion.com/BrushAlloys/ContactUs.



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MATERION CORPORATION

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