

EquiMet® 2 CX Tempers Rod, Tube & Rectangles

EquiMet 2 Alloy is Materion's sustainable solution to your severe service material problems. By applying our proprietary technology process to produce the EquaCast® microstructure, tailored alloying additions and spinodal hardening technology, we have engineered EquiMet to provide attributes beyond those typically found in a high-strength copper alloy. EquiMet 2 in the cast and spinodally hardened (CX90) condition exhibits tensile strength in excess of 105 ksi and hardness exceeding HRC 27. This Copper-9%Nickel-6%Tin alloy combines low coefficient of friction with wear resistance and excellent machinability.

- Exceptional resistance to corrosion and cavitation
- Outstanding lubricity and durability in demanding applications
- Highly uniform composition in all product forms
- Available in a wide range of continuous-cast shapes and sizes - consult Materion sales for more information

EquiMet 2 CX90 Alloy is not recommended for use in plastic injection mold tooling where glossy or semi-glossy surface finishes are required. Use MoldMAX® XL material instead.

PHYSICAL PROPERTIES

Young Modulus	Poisson's Ratio	Electrical Conductivity	Thermal Conductivity	CTE (70 - 215°F) (20 - 100°C)	Density	Fatigue Limit (estimated)	Magnetic Permeability
17 x 10 ⁶ psi (117 GPa)	0.3	13 - 14% IACS	30 Btu/ft/hr/°F (52 W/m/°C)	9.0 x 10 ⁻⁶ /°F (16.2 x 10 ⁻⁶ /°C)	0.322 lb/in ³ (8.91g/cm ³)	20 ksi (138 MPa) at R=-1*	< 1.001

*Fatigue at 10⁶ cycles

MECHANICAL PROPERTIES

Temper	0.2% Offset Yield Strength		Ultimate Tensile Strength		Elongation	Hardness
	ksi	MPa	ksi	MPa	(%)	HRC
CX90	90	621	105	724	3	27

Typical minimum values

Minimum tensile strength and yield strength shall be reduced 10% for material having a cross section 4 inches (102 mm) or more.

(The cross section is defined as the diameter of a round solid, the distance across the flats of a solid hexagon, the thickness of a rectangle, or the wall thickness of a tube.)

STANDARD AVAILABILITY

Rod: Diameter from 2 to 4" inches (51 – 101 mm), in lengths up to 12 ft (3.66 m).

Tube: Outside diameter from 2 to 15" (25 – 381 mm). Minimum wall thicknesses approximately 10-12% of the outside diameter. For sizes larger than 15" (381 mm) outside diameter, please consult a sales engineer for potential sizes and availability.

SPECIFICATIONS AND STANDARDS

ASTM B505, UNS C96970

CONTACT INFORMATION

North American Sales	Pricing, availability, tolerances, etc.	+(1) 800-321-2076
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	