



As Sand Cast																	
TQ50	0.0	0	TYP	68	105	54	-	-	8	-	-	-	-	195	50	35	11.0
	0.0			20	724	372	-	-	8	-	-	-	-	195	345	241	15.0
M01	0.0	0	SMIN	68	75	30	-	-	12	-	-	-	-	150	-	-	0.0
	0.0			20	517	207	-	-	12	-	-	-	-	150	-	-	0.0
M01	0.0	0	SMIN	68	75	30	-	-	12	-	-	-	-	150	-	-	0.0
	0.0			20	515	205	-	-	12	-	-	-	-	150	-	-	0.0
M01	0.0	0	SMIN	68	75	30	-	-	-	-	-	-	-	-	-	-	0.0
	0.0			20	517	207	-	-	-	-	-	-	-	-	-	-	0.0
As Permanent Mold Cast																	
M05	0.0	0	TYP	68	105	46	-	-	11	-	-	-	-	-	-	-	0.0
	0.0			20	725	320	-	-	11	-	-	-	-	-	-	-	0.0
As Sand Cast																	
TQ50	0.0	0	MIN	68	90	45	-	-	6	-	-	-	-	190	-	-	0.0
	0.0			20	620	310	-	-	6	-	-	-	-	190	-	-	0.0
TQ50	0.0	0	SMIN	68	90	45	-	-	6	-	-	-	-	190	-	-	0.0
	0.0			20	621	310	-	-	6	-	-	-	-	190	-	-	0.0

\*Fatigue Strength: 100 x 10<sup>6</sup> cycles,  
unless indicated as [N]X 106.

Physical Properties

<>	US Customary	Metric
Melting Point - Liquidus	1900 F	1038 C
Melting Point - Solidus	1880 F	1027 C
Density	0.269 lb/in <sup>3</sup> at 68 F	7.45 gm/cm <sup>3</sup> @ 20 C
Specific Gravity	7.45	7.45
Electrical Resistivity	80.2 ohms-cmil/ft @ 68 F	13.33 microhm-cm @ 20 C
Electrical Conductivity	13 %IACS @ 68 F	0.075 MegaSiemens/cm @ 20 C
Thermal Conductivity	33.9 Btu · ft/(hr · ft <sup>2</sup> ·oF)at 68F	58.7 W/m · oK at 20 C
Coefficient of Thermal Expansion	9.0 · 10 <sup>-6</sup> per oF (68-572 F)	16.2 · 10 <sup>-6</sup> per oC (20-300 C)
Specific Heat Capacity	0.1 Btu/lb/oF at 68 F	419.0 J/kg · oK at 293 K
Modulus of Elasticity in Tension	15500 ksi	107000 MPa
Magnetic Permeability*	1.2	1.2
Magnetic Permeability**	1.27	1.27

\*TQ 50 Temper, Field Strength 16 kA/m

\*\*As Cast, Field Strength 16 kA/m

**Tempers Most Commonly Used** No information available.

**Typical Uses**

**Automotive**

Weld Guns

**Fasteners**

Nuts, Large Hold Down Screws

**Industrial**

Pickling Hooks, Bearings, Pawl, Worm Gears, Machine Parts, Spur Gears, Heavily Loaded Worm Gears, Pump Parts, Landing Gear Parts, Valve Bodies, Valve Guides, Valve Seats, Bearing Segments for the Steel Industry, Pressure Blocks for the Steel Industry, High Strength Clamps, Bushings, Valves, Gears

**Marine**

Ship Building, Covers for Marine Hardware

**Ordinance**

Government Fittings

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