

Technical Data

# ROD & BAR ALLOY 6061

## APPLICABLE SPECIFICATIONS

Cold Finished	Extruded
ASTM B211	ASTM B221
AMS-QQ-A-225/8	AMS-QQ-A-200/8
AMS 4115	AMS 4150
AMS 4116	AMS 4160
AMS 4117	AMS 4161
AMS 4128	AMS 4172
ASTM B316	AMS 4173

## CHEMICAL COMPOSITION LIMITS

Weight %	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Others	
									Each	Total
Minimum	0.40		0.15		0.80	0.04				
Maximum	0.80	0.70	0.40	0.15	1.20	0.35	0.25	0.15	0.05	0.15

## TYPICAL PHYSICAL PROPERTIES

Characteristic			English	Metric
Nominal Density (68 °F / 20 °C)			0.098 lbs./in. <sup>3</sup>	2.70 Mg/m <sup>3</sup>
Melting Range			1080 °F - 1206 °F	582 °C - 652 °C
Specific Heat (212 °F / 100 °C)			0.214 BTU/lb. - °F	896 J/kg - °K
Coefficient of Thermal Expansion	Linear 68 °F - 212 °F 20 °C - 100 °C		13.1 micro in./in. - °F	23.6 micro m/m - °K
	Volumetric 68 °F / 20 °C		3.93 x 10 <sup>-5</sup> in. <sup>3</sup> /in. <sup>3</sup> - °F	71 x 10 <sup>-6</sup> m <sup>3</sup> /m <sup>3</sup> - °K
Thermal Conductivity (68 °F / 20 °C)	O Temper		104 BTU/ft. - hr. - °F	180 W/m - °K
	T4, T451		89 BTU/ft. - hr. - °F	154 W/m - °K
	T6, T651		97 BTU/ft. - hr. - °F	167 W/m - °K
Electrical Conductivity (68 °F / 20 °C)	Equal Volume	O Temper	47% IACS	
		T4, T451	40% IACS	
		T6, T651	43% IACS	
	Equal Weight	O Temper	155% IACS	
		T4, T451	132% IACS	
		T6, T651	142% IACS	