

## PROPERTIES AND SPECIFICATIONS:

Alloy	Chemical Composition % (1)									
	Al	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Others Each Total
<b>6063</b>	Rem.	0.20 - 0.6	0.35	0.10	0.10	0.45 - 0.9	0.10	0.10	0.10	0.05 0.15

	Temper	Size or Thickness (3)		Mechanical Property Compliance or Rating (2)			Typical Mechanical Properties, Characteristics and Applications				
				Tensile Strength (MPa)		(5) Elong. % (Min)	Tensile Strength (MPa)		Elong. %	Shear (MPa)	Hardness (Hv)
		Over mm	Up to mm	UTS (Min)	Yield (Min) (4)		UTS	Yield			
	F		200	...	...	...	100	...	20	...	45
	T1		12	115	60	12	125	65	20	...	50
		12	25	110	55	10	120	60	20	...	50
	T4		150	130	70	12	140	75	20	...	50
	T5		12	150	110	8	165	120	12	117	65
		12	25	145	105	6	155	115	10	117	65
	T52		12	150-205	110	8	160	120	12	110	62
	T6		25	205	170	8	220	185	10	152	75
		25	150	185	160	10	200	175	12	152	75
	T8	All		225	205	8	245	225	10	152	85

<b>Modulus of Elasticity (GPa):</b> [All Tempers] • Tension • Compression • Shear		68.3 69.7 25.8
<b>Resistance to Corrosion:</b> • General • Stress Corrosion Cracking	(6) A A	Can be used in industrial and seacoast atmospheres without protection.
<b>Workability (Cold)</b>	C	Average
<b>Machinability</b>	C	Average
<b>Weldability</b> • Gas • Arc • Resistance, Spot & Seam	A A A	Generally weldable by all commercial procedures and methods.
<b>Brazability</b>	A	Generally weldable by all commercial procedures and methods.
<b>Typical Applications</b>		Light structural & architectural extrusions such as glazing bars and window frames, general purpose extrusions. Good surface finish, anodises well.

Updated: September 2009

### Notes:

- Chemical compositions are referenced in AS/NZS 1866. Single figures are maximums.
- Mechanical properties and ratings for T1, T4, T5 & T6 tempers are specified in AS/NZS 1866. T52 temper is not listed in AS/NZS 1866. T8 temper is specified in AS/NZS 1867 as T81 temper. Temper F is included in BS 1474 and is given for information only.
- Thickness is defined as the diameter of solid rod or the wall thickness or the equivalent major solid cross section.
- Yield is based on 0.2% Proof Stress.
- Elongation is based on 50mm test parameter.
- Ratings A through E are relative ratings in order of merit for the hardest temper (A = Excellent E = Poor).

**Consult McKechnie Aluminium Technical Services Department if further information is required.**