

PROPERTIES AND SPECIFICATIONS:

Alloy	Chemical Composition % (1)										
	Al	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Others Each Total	
6061	Rem.	0.40 - 0.8	0.7	0.15 - 0.40	0.15	0.8 - 1.2	0.04 - 0.35	0.25	0.15	0.05	0.15

	Temper	Size or Thickness (3)		Mechanical Property Compliance or Rating (2)			Typical Mechanical Properties, Characteristics and Applications				
				Tensile Strength (MPa)		Elong . % (Min)	Tensile Strength (MPa)		Elong. %	Shear (MPa)	Hardness (Hv)
		Over mm	Up to mm	UTS (Min)	Yield (Min) (4)		UTS	Yield			
	T1		12.5	180	95	16	195	105	20	...	60
	T4	All		180	110	14	195	120	20	165	60
	T5		≤ 3	250	220	8	290	275	12	207	95
		> 3	≤ 6	235	210	8	280	270	13	207	90
	T6	All		260	240	8	300	280	12	207	100
	T6511	All		260	240	8	300	280	12	207	100

Modulus of Elasticity (GPa): [All Tempers] • Tension • Compression • Shear		68.9 69.7 ~ 26
Resistance to Corrosion: • General • Stress Corrosion Cracking	(6) B A	Good corrosion resistance for high strength applications.
Workability (Cold)	C	Average
Machinability	C	Average
Weldability • Gas • Arc • Resistance, Spot & Seam	A A A	Generally weldable by all commercial procedures and methods.
Brazeability	A	Generally weldable by all commercial procedures and methods.
Typical Applications		Structural applications where corrosion resistance is needed, i.e. marine and transport use.

Notes:

- 1) Chemical compositions are referenced in AS/NZS 1866. Single figures are maximums.
- 2) Mechanical properties and ratings for T1, T4 & T6 tempers are specified in AS/NZS 1866.
- 3) T6511 is a controlled stretch in-house temper, also meeting T6 properties.
- 4) Thickness is defined as the diameter of solid rod or the wall thickness or the equivalent major solid cross section.
- 5) Yield is based on 0.2% Proof Stress.
- 6) Elongation is based on 50mm test parameter.
- 7) 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.

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