


PROPERTIES AND SPECIFICATIONS:

CHEMICAL COMPOSITION % (1)												
Alloy	Al	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Others		Other Specific Elements
										Each	Total	
6005A	Rem.	0.50 -0.90	0.35	0.30	0.50	0.40 -0.70	0.30	0.20	0.10	0.05	0.15	Mn + Cr 0.12 - 0.50

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			
T4	All		180	110	14	200	150	18	...	60
T5	All		260	240	8	280	260	12	205	100

Modulus of Elasticity (Gpa): [All Tempers]		
• Tension		~ 69
• Compression		~ 69
• Shear		~ 26
Resistance to Corrosion:		(6)
• General	A	Can be used in industrial and seacoast atmospheres without protection.
• Stress Corrosion Cracking	A	
Workability (Cold)		C Average
Machinability		C Average
Weldability		
• Gas	A	Generally weldable by all commercial procedures and methods.
• Arc	A	
• Resistance, Spot & Seam	A	
Brazeability		A Generally weldable by all commercial procedures and methods.
Typical Applications		Structural applications, transport and marine, extrusions for portable ladders. Used for applications requiring greater strength than 6063 and 6106 alloys.

Notes:

- 1) Chemical compositions are referenced in AS/NZS 1866. Single figures are maximums.
- 2) Mechanical properties and ratings for T5 tempers are specified in AS/NZS 1866. (Note McKechnie internal designation T6 temper).
- 3) Thickness is defined as the diameter of solid rod or the wall thickness or the equivalent major solid cross section.
- 4) Yield is based on 0.2% Proof Stress.
- 5) Elongation is based on 50mm test parameter.
- 6) 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.