



McKechnie®
Transforming Aluminium

Alloy 6063

PROPERTIES AND SPECIFICATIONS:

CHEMICAL COMPOSITION % (1)											
Alloy	Al	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Others	
										Each	Total
6063	Rem.	0.2 -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

Modulus of Elasticity (Gpa):

[All Tempers]

- Tension 68.3
- Compression 69.7
- Shear 25.8

Resistance to Corrosion:

- General (6) 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

Light structural & architectural extrusions such as glazing bars and window frames, general purpose extrusions. Good surface finish, anodises well.

Notes:

- 1) Chemical compositions are referenced in AS/NZS 1866. Single figures are maximums.
- 2) 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. Temper F is included for information only.
- 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.