

# 6061 - ALUMINIUM ALLOY

Typical Analysis (Ave. values %)	Mg	Mn	Fe	Si	Zn	Cr	Ti	Cu	Al
	1.0	0.15	0.7	0.6	0.25	0.2	0.15	0.3	96.5
NEAREST STANDARD	BS					ISO			
	EN AW-6061					Al Mg1SiCu			

<b>DESCRIPTION</b>	Heat treatable alloy of medium strength, good corrosion resistance and weldability.
--------------------	---

<b>APPLICATIONS</b>	Road and rail vehicle frames. Heavy duty structures.
---------------------	--

<b>MECHANICAL PROPERTIES</b>	Temper	Tensile strength MPa	0.2% Proof stress MPa	Elong.A5 %	Elong.A50 %	Hardness Vickers
	O	125	55	18-27	26	30
	T4	180-235	110-140	14-21	16-21	70
	T6	260-310	240-270	7-14	8-12	100

<b>FABRICATION PROPERTIES</b>	Machinability	Good
	Extruding	Good
	General	Fair

<b>PHYSICAL PROPERTIES</b>	Density	2.70 (kg/dm <sup>3</sup> )
	Melting point (Liquidus)	650°C
	Melting point (Solidus, Eutectic)	580°C
	Coefficient of thermal expansion	23.3- $\mu\text{m m}^{-1}\text{K}^{-1}$
	Thermal conductivity	166-W m <sup>-1</sup> K <sup>-1</sup>
	Specific heat capacity	895 JKg <sup>-1</sup> K <sup>-1</sup>
	Electrical resistivity	40 n $\Omega$ m
	Electrical conductivity	43% IACS

<b>JOINING PROPERTIES</b>	Spot welding	Good
	Soldering	Good
	Brazing	Good
	Oxy acetylene welding	Good
	Gas shielded arc welding	Excellent

<b>CORROSION RESISTANCE</b>	Industrial atmosphere	Good
	Marine atmosphere	Good
	General	Good

**LOCATIONS**

**Bohler Uddeholm Australia Pty Ltd ABN 15000013052**

Sydney	129-135 McCredie Rd Guildford	2161	Ph (02) 8724 5554	Fax (02) 8724 5555
Newcastle	3 Pavilion Pl Cardiff	2285	Ph (02) 4954 6611	Fax (02) 4956 5773
Albury	1 Eames St Albury	2640	Ph (02) 6041 3399	Fax (02) 6041 1820
Wollongong	40 Doyle Ave Unanderra	2526	Ph (02) 4272 6544	Fax (02) 4272 7563
Marayong	1/21 Binney Rd Marayong	2148	Ph (02) 9831 4431	Fax (02) 9671 1682
Melbourne	282-290 Greens Rd Dandenong	3175	Ph (03) 9767 5554	Fax (03) 9767 5555
Bayswater	4 Amsted Rd Bayswater	3153	Ph (03) 9739 8022	Fax (03) 9739 8033
Adelaide	1 Williams Cir Pooraka	5095	Ph (08) 8368 4554	Fax (08) 8368 4555
Brisbane	12-18 Limestone St Darra	4076	Ph (07) 3712 9554	Fax (07) 3712 9555
Townsville	9-11 Caldwell St Garbutt	4814	Ph (07) 4479 4800	Fax (07) 4725 1316
Perth	29-33 Gauge Cir Canningvale	6155	Ph (08) 9455 8672	Fax (08) 9455 8673
Kewdale	5 Beete St Welshpool	6106	Ph (08) 9350 9582	Fax (08) 9350 9683
Launceston	20 Murphy St Invermay	7248	Ph (03) 6334 3542	Fax (03) 6331 4001

[www.buau.com.au](http://www.buau.com.au)

Every care has been taken in listing this information, particularly specifications. Bohler Uddeholm Australia Pty Ltd will not accept responsibility for any loss or other damage caused to any person or Company as a result of the use of information contained herein

Notes