

## Common extrusion aluminium alloys and their properties

Designation	Suitability						Temper	Mechanical Properties *		Common end uses
	Forming	Machining	Welding	Brazing / Soldering	Protective Anodising	Aesthetic Anodising		Restict. (min N/mm)	Stress (min N/mm)	
1050	Good	Poor	Good	Good	Excellent	Excellent	F	-	-	Electrical conductivity
2014 (L168)	Good	Good	Not Suitable	Not Suitable	Fair	Not Suitable	T4	230	370	High Strength aerospace
							T6	370	415	
							T6511	370	435	
2024	Good	Good	Not Suitable	Not Suitable	Fair	Not Suitable	T3	260	393	High Strength aerospace
							T3510/11	260	393	
3003	Excellent	Fair	Good	Good	Good	Poor	0	-	97	Formed heat exchangers
5083	Good	Good	Fair	Not Suitable	Good	Good	0	125	275	Marine
6005	Good	Good	Good	Good	Good	Fair	T6	220	260	Medium strength commercial
6060	Good	Good	Good	Good	Good	Good	T4	60	120	General commercial
							T5	100	145	
							T6	150	190	
6061	Good	Good	Good	Good	Good	Fair	T4	115	190	High/Med. Strength commercial
							T6	240	280	
							T6511	240	280	
6063	Good	Good	Good	Good	Good	Good	0	-	140max	General commercial
							F	-	-	
							T4	70	130	
							T5	110	150	
							T6	160	195	
6063A	Good	Good	Good	Good	Good	Good	T4	90	150	Consistent forming
							T5	160	200	
							T6	190	230	
							0	-	170max	
6082 (L111)	Good	Good	Good	Good	Good	Fair	F	-	-	High strength commercial
							T4	120	190	
							T5	230	270	
							T6	255	295	
							T6511	255	295	
6463	Good	Good	Good	Good	Good	Excellent	T4	75	125	High polished commercial
							T6	160	185	
7075 (L160)	Fair	Good	Not Suitable	Not Suitable	Fair	Poor	T6	480	540	Very high strength aerospace

Please note: The above table shows some of the common alloys available that Capalex can extrude.

Whilst every effort is made to ensure the accuracy of data provided, Capalex does not guarantee or accept liability for its accuracy.

\* Properties given are typical and should only be used for comparison of alloys. Actual values will depend on section specification.

### Useful Information

#### Standard gauge (swg) to metric conversion table:

Standard gauge (SWG)	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Thickness (mm)	4.88	4.47	4.06	3.66	3.25	2.95	2.64	2.34	2.03	1.83	1.63	1.42	1.22	1.02	0.91	0.81	0.71	0.61	0.56	0.51

Section weight in aluminium (kg/m) = cross section area (mm) x 0.002712



+44(0)1946 811771 Fax: +44(0)1946 813681 <http://www.capalex.com>