ROUND

Size Dia	Weight Kg/m	6082T6	2011T3 SPEEDAL	6063T6	6262T9	2014T6
1/8"	0.023	●				
3/16"	0.048	●	●			
1/4"	0.087	●	●	●		
5/16"	0.133	●	●	●		
3/8"	0.193	●	●	●	●	
7/16"	0.263	●	●	●		●
1/2"	0.343	●	●	●	●	●
9/16"	0.434	●	●		●	●
5/8"	0.538	●	●	●	●	●
11/16"	0.649	●	●		●	
3/4"	0.772	●	●	●	●	●
13/16"	0.908	●	●			●
7/8"	1.050	●	●	●	●	●
15/16"	1.210	●	●		●	●
1"	1.370	●	●	●	●	●
1 1/16"	1.550		●			
1 1/8"	1.740	●	●	●	●	●
1 3/16"	1.930	●	●			●
1 1/4"	2.140	●	●		●	●
1 5/16"	2.380	●	●			●
1 3/8"	2.600	●	●	●	●	●
1 1/2"	3.100	●	●		●	●
1 5/8"	3.630	●	●		●	
1 3/4"	4.210	●	●		●	●
1 7/8"	4.840	●	●	●	●	
2"	5.490	●	●	●	●	●
2 1/8"	6.200	●	●		●	
2 1/4"	6.950	●	●		●	●
2 3/8"	7.750	●	●			
2 1/2"	8.590	●	●		●	●
2 5/8"	9.460	●	●		●	
2 3/4"	10.400	●	●		●	●
3"	12.400	●	●		●	●
3 1/4"	14.500	●	●		●	
3 1/2"	16.800	●	●		●	
3 3/4"	19.200	●	●		●	
4"	22.200	●	●		●	
4 1/4"	24.900	●	●			
4 1/2"	27.800	●	●		●	
4 3/4"	31.000	●				
5"	34.400	●	●		●	●
5 1/4"	37.800	●			●	
5 1/2"	41.500	●	●			
5 3/4"	45.400	●				
6"	49.400	●				
6 1/4"	53.700	●				
6 1/2"	58.000	●				
7"	67.300	●				
7 1/2"	77.200	●				
8"	92.300	●				
8 1/2"	99.300	●				
9"	111.300	●				
9 1/2"	127.700	●				
10"	137.400	●				
11	166.200	●				
12"	198.000	●				

ROUND METRIC

Size Dia	Weight Kg/m	6082T6	2011T3 SPEEDAL	6063T6	6262T9	5083-F
6mm	0.076		●			●
8mm	0.136		●	●		●
10mm	0.213		●			●
12mm	0.306	●	●	●		●
16mm	0.545	●				●
20mm	0.852	●	●		●	
25mm	1.330	●				●
35mm	2.610					
40mm	3.408	●				

HEXAGON

Size A/F	Weight Kg/m	6082T6	2011T3 SPEEDAL	6262T6
0.445"	0.309		●	
0.500"	0.391		●	
0.525"	0.429	●	●	
0.600"	0.562		●	
0.625"	0.610		●	
0.710"	0.787		●	
3/4"	0.879	●	●	
0.820"	1.050		●	
1.000"	1.516			●
1.010"	1.590		●	
1.200"	2.250		●	
1.480"	3.410		●	
1.670"	4.200	●		

SQUARE

Size Sq	Weight Kg/m	6082T6
3/16"	0.082	
1/4"	0.110	●
5/16"	0.172	●
3/8"	0.256	●
1/2"	0.438	●
5/8"	0.682	●
3/4"	0.986	●
7/8"	1.340	●
1"	1.760	●
1 1/4"	2.740	●
1 1/2"	3.850	●
1 3/4"	5.240	●
2"	6.860	●
2 1/4"	9.180	●
2 1/2"	10.700	●
3"	15.400	●
4"	28.100	●
5"	43.700	●
6"	62.900	●

LENGTHS SUPPLIED

Round	Hexagon	Square
Supplied in random lengths 6082: <4" = 4m lengths <100mm =4m lengths 4" - 12" = 2 - 3m lengths 2011/6262: 10ft lengths chamfered one end 2014: 10ft lengths 5083: 4m lengths	2011/6262: 10ft lengths chamfered one end 6082: 4m lengths	6082: 4m lengths

FREE MACHINING ALUMINIUM ROD

SPEEDAL: EN AW 2011 - AlCuPbBi

Speedal is a medium strength free cutting aluminium alloy.

It produces a fine, well broken chip when machined and is recommended for use where high quality surface finish and excellent machinability are principal requirements.

Full advantage can be taken of the low cutting forces required in machining Speedal at the highest speeds with minimal cycle times. Additionally, Speedal is suitable for the more difficult machining operations such as deep drilling, tapping and threading.

Ensuring superior tool life and component quality, Speedal is ideal for the economic production of repetition components.

6262: EN AW 6262 - AlMgSiPb

A very high speed, free machining aluminium alloy with very good anodising qualities due to a special chemical composition that promotes consistent anodising performance.

Suitable for medium strength applications it combines superior and long lasting aesthetic properties with very good machinability performance in the production of repetition turned components.

MACHINING SPEEDS - 2011 and 6262 Aluminium

Feed mm/rev	0.1	0.16	0.25	0.4	0.63	
Max Doc*	Surface Speed Metre/Minute					WIDIA Tool Grade
2mm	600	575	550	500	400	W1090 or THM
4mm	510	470	425	300	330	W1090 or THM
8mm	380	330	290	250	200	W1090 or THM
2mm	1200	1100	1100	1000	1000	PCD
4mm	1000	900	850	800	-	PCD

*Doc=depth of cut

CHEMICAL & MECHANICAL PROPERTIES

Material Designation	Chemical Composition												Aluminium	Temper	Thickness		Mechanical Properties				
											Others				Over mm	Up to & including mm	0.2% Proof Stress min N/mm²	Tensile Strength min N/mm²	Tensile Strength max N/mm²	Elongation On $5.65\sqrt{S_o}$ min %	Elongation On 50mm min %
	Si	Fe	Cu	Mn	Mg	Cr	Ni	Zn		Ti	Each	Total									
2014A	0.50-0.90	0.50	3.90-5.00	0.40-1.20	0.20-0.80	0.10	0.10	0.25	Zr + Ti0.20	0.15	0.05	0.15	Rem	T6/T651	-	20	370	435	-	7	6
															20	75	435	480	-	7	-
															75	150	420	465	-	7	-
															150	200	390	435	-	7	-
6063	0.20-0.60	0.35	0.10	0.10	0.45-0.90	0.10	-	0.10	-	0.10	0.05	0.15	Rem	T4	-	150	70	130	-	16	14
															150	200	70	120	-	13	-
														T5	-	25	110	150	-	8	7
														T6	-	150	160	195	-	8	7
6082	0.70-1.30	0.50	0.10	0.40-1.00	0.60-1.20	0.25	-	0.20	-	0.10	0.05	0.15	Rem	O	-	200	-	110	-	16	14
														F	-	150			-	13	12
														T4	-	200	100	170	-	13	-
														T5	-	6	230	270	-	9	8
														T6	-	20	255	295	-	8	7
																150	270	310	-	8	-
2011 BS4300/5	0.40	0.70	5.00-6.00	-	-	-	-	0.30	Bi 0.20-0.60 Pb 0.20-0.60	-	0.05	0.15	Rem	T3	-	-	270	320	-	10	-
6262	0.40-0.80	0.70	0.15-0.40	0.15	0.80-1.20	0.04-0.14	-	0.25	Bi 0.40-0.70 Pb 0.40-0.70	0.15	-	-	Rem	T9	-	-	330	360	-	5	-
5083	0.40	0.40	0.10	0.40-1.00	4.00-4.90	0.05-0.25	-	0.25	-	0.15	0.05	0.15	Rem	F	-	150	130	280	-	16	14

* Typical Properties