

# Austral Wright Metals.

## Australia's largest stockist & supplier of copper & brass products.

In addition to our extensive range of copper and brass rolled products,  
we now have in stock a wide range of busbar & copper rod.



 **Austral Wright** Metals

Shown here are the common sizes of standard copper busbar and copper rod. Specialised copper sections are also available, along with brass round, hex bar, square bar, hollow bar and sections.

We will work with you to develop unique sections for specialised applications and can source these products from quality mills throughout the world.

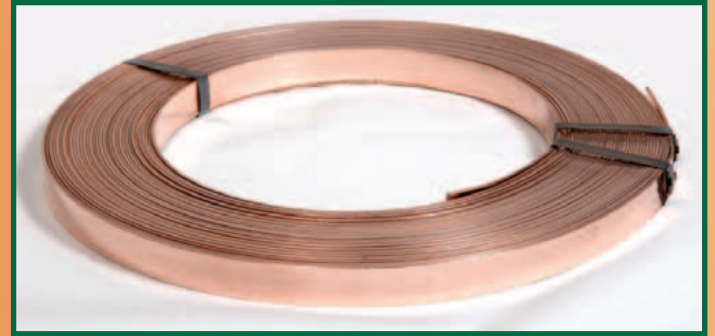
Austral Wright Metals have operations across Australia, with experienced technical and commercial staff dedicated to working with Australian manufacturers.



## Copper Bar Standard Sizes

### Round

Metric (mm)	Imperial (Inches)	kg/m (Nominal)	Alloy	
			C11000	C14700
			High Conductivity Copper	Free Machining Copper
4.76	3/16	0.16	50003649	
6.35	1/4	0.28	50003650	
7.94	5/16	0.44	50003651	
9.53	3/8	0.64	50003653	
12.7	1/2	1.13	50003392	50003407
15.88	5/8	1.77	50003393	
17.46	11/16	2.14		50003471
19.05	3/4	2.55	50003395	50114703
22.23	7/8	3.47	50003396	
25.4	1	4.53	50003397	50003472
31.75	1 1/4	7.08	50003508	
38.1	1 1/2	10.19	50003510	50025282
44.45	1 3/4	13.87	50003511	
50.8	2	18.12	50003513	
63.5	2 1/2	28.31	50003630	



### Pancake coil

Metric (mm)	Imperial (Inches)	kg/m (Nominal)	kg per coil (Approximal)	Alloy C11000
25 x 3		0.67	60	50003825
38.1 x 3.18	1 1/2 x 1/8	1.08	60	50003855
40 x 2.5		0.89	36	50003801
40 x 4		1.43	36	50003811

### Square

Metric (mm)	Imperial (Inches)	kg/m (Nominal)	Alloy C11000
50.8	2 x 2	23.00	50003519



**Please note:** Other sizes available upon request. Standard length for Round or Square: 3600mm.  
**Also available:** All forms of Copper, Brass, Stainless Steel, Aluminium & High Performance alloys

# Flat

# Copper Bar Standard Sizes

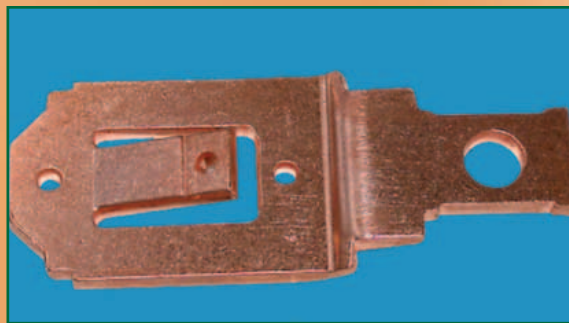
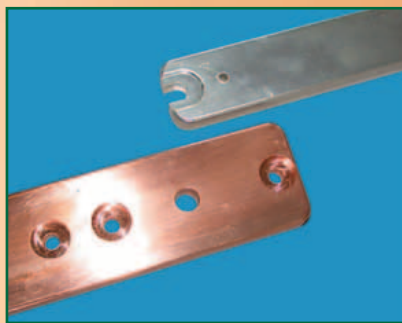
Metric (mm)	Imperial (Inches)	kg/m (Nominal)		Alloy C11000 Plain			Alloy C11000 Tinned		
		SE	FR	Square Edge	Radius Corner	Full Radius	Square Edge	Radius Corner	Full Radius
12.7 x 3.18	1/2 x 1/8	0.36	0.34	50003940					
15.88 x 3.18	5/8 x 1/8	0.45	0.43	50003942					
19.05 x 3.18	3/4 x 1/8	0.54	0.52	50003928					
19.05 x 4.76	3/4 x 3/16	0.81	0.76	50003944					
19.05 x 6.35	3/4 x 1/4	1.08	1.00			50004036			
20 x 6.3		1.12	1.05			50003924			50003912
20 x 10		1.78	1.59		50113149			50113152	
25 x 6.3		1.40	1.33			50003923			50003909
25 x 10		2.23	2.03		50004026			50066094	
25.4 x 3.18	1 x 1/8	0.72	0.70	50003930		50003992			
25.4 x 4.76	1 x 3/16	1.08	1.03	50003945					
25.4 x 19.05	1 x 3/4	4.31	3.61	50003969					
30 x 10		2.67	2.48		50004025			50004042	
31.5 x 6.3		1.77	1.69			50003925			50003981
31.75 x 3.18	1 1/4 x 1/8	0.90	0.88	50003931		50003973			
31.75 x 6.35	1 1/4 x 1/4	1.79	1.72	50003957					
38.1 x 3.18	1 1/2 x 1/8	1.08	1.06	50003932		50097422			
38.1 x 4.76	1 1/2 x 3/16	1.61	1.57	50003947		50003967			
38.1 x 19.05	1 1/2 x 3/4	6.46	5.77	50003896					
40 x 6.3		2.24	2.17			50003926			50004011
40 x 10		3.56	3.37		50003961			50066102	
50 x 6.3		2.80	2.73			50004053			50004060
50 x 10		4.45	4.26		50003966	50003922		50004040	
50.8 x 3.18	2 x 1/8	1.44	1.42	50003935					
50.8 x 4.76	2 x 3/16	2.15	2.11	50003948					
50.8 x 6.35	2 x 1/4	2.87	2.79	50003937			50003883		
50.8 x 12.7	2 x 1/2	5.74	5.43	50003994					
60 x 6.3		3.36	3.29			50011337			
60 x 10		5.34	5.15		50003964			50004024	
60 x 12		6.41	6.13		50003959			50003971	
63 x 6.3		3.53	3.46			50003956			50003894
63.5 x 3.18	2 1/2 x 1/8	1.80	1.78	50003943					
80 x 6.3		4.49	4.41			50004047			50003892
80 x 10		7.12	6.93		50004023	50003955		50004012	
100 x 6.3		5.61	5.53			50004046			50003906
100 x 10		8.90	8.71		50004049	50115359		50117516	50066103
101.6 x 6.35	4 x 1/4	5.74	5.66	50003983					
101.6 x 12.7	4 x 1/2	11.48	11.18	50003844					
101.6 x 25.4	4 x 1	22.97	21.73	50003849					
120 x 10		10.68	10.49		50003835			50116699	
125 x 6.3		7.01	6.93			50004022			50003927
152.4 x 6.35	6 x 1/4	8.61	8.54	50004001					
152.4 x 12.7	6 x 1/2	17.23	16.92	50119892					
152.4 x 25.4	6 x 1	34.45	33.22	50119893					
160 x 6.3		8.97	8.90			50004021			50003874
160 x 10		14.25	14.05		50004027		50003917		

**Please note:** Other sizes available upon request. Standard length for Flat: 4000mm.

Typical Physical Properties of Alloys C11000		
	Metric	Imperial
Density at 20C	8.89 g/cm <sup>3</sup>	0.321 lb/in <sup>3</sup>
Melting point	1,083 C	1,981F
Coefficient of thermal expansion @		
20~100 C	16.8 x 10 <sup>-6</sup> /C	9.33 x 10 <sup>-6</sup> /F
20~300 C	17.7 x 10 <sup>-6</sup> /C	9.83 x 10 <sup>-6</sup> /F
Thermal conductivity @ 20C	395 W/Km	227 Btu ft/ft <sup>2</sup> hF
Electrical conductivity @ 20C	58 m/Ωmm <sup>2</sup>	101% IACS
Electrical resistivity @ 20C	17.2 nΩm	10.3Ω
Temperature coefficient of electrical resistance @ 20C	0.00397/C	0.00218/F
Modulus of elasticity @ 20C	118 kN/mm <sup>2</sup>	17,000 Ksi
Modulus of rigidity @ 20C	44 kN/mm <sup>2</sup>	6,400 Ksi

Nominal Chemical Composition				
Alloy	% Copper (+Ag)	% Oxygen	% Sulphur	% Phosphor
C11000 - ETP Copper	99.90 min			
C10200 - Oxygen Free Copper	99.95 min	0.001 max		
C14700 - Free Machining Copper	99.90 min (+S+P)		0.20~0.50	0.002~0.005

Typical Mechanical Properties		
	Tensile, N/mm <sup>2</sup>	Elongation, % min.
Soft	196 min	35
1/4 Hard	216/275	25
1/2 Hard	245/314	15
Hard	275 min	5



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### Also available:

All forms of Copper,  
Brass, Stainless Steel, Aluminium  
& High Performance alloys

