



bolton
AEROSPACE

Part of the Bolton Metals Group

BOLTON AEROSPACE LTD
PO BOX 22 - Hadleigh Road
Ipswich - IP2 OEG, UK

Phone : +44 (0)1473 252 127 - Fax : +44 (0)1473 218 229
aerospace@boltonmetals.com - www.boltonmetals.com

ALUMINIUM BRONZES



BOLTON AEROSPACE OFFERS AN IDEAL RANGE OF PROPERTIES

MECHANICAL PROPERTIES

Alloy	Related Specifications					Nominal Composition %						Condition	Typical Size Range (mm)	Typical Mechanical Properties					Density Approx (g/cm ³)
	British	CEN	French	German	USA	Cu	Al	Fe	Ni	Mn	Si			Rp0.2 (MPa)	Rt (MPa)	Rm (MPa)	Elongation (%)	Hardness (HB)	
Wrought																			
CA1	BS 2B23 DTD197A CA104	CW307G		2.0966		80	10	4.7	5	0.3		Ext /Drawn Rolled Forged	10-75 50-175 > 175	370-600 320-500 320-500		740-850 700-800 700-800	12-20 15-25 15-25	195-255 180-240 180-240	7.6
CA2	BS 2B23 CA104		UA11N NF L14-706	2.0966		79.4	10.6	4.7	5	0.3		Ext /Drawn Rolled	10-75 75-175	390-600 390-500		740-850 700-800	12-20 10-20	195-255 190-240	7.6
CA31 CA32 X235	NES 833 D-STAN 02- 833 Pt 2 Issue 1	CW307G				82	9.3	4.2	4.2	0.3		Ext /Drawn Rolled Forged	10-75 50-175 > 175	320-450 250-400 250-360		635-750 620-700 620-700	20-30 20-30 20-30	175-220 170-220 170-210	7.6
CA7	CA103 (1969)				AMS4635 C62300	88.3	9.25	2.25			0.2	Ext /Drawn Rolled	10-75 50-175		300-450 250-370	600-700 550-650	20-35 25-35	155-190 155-190	7.6
CA10		CW302G			AMS4631 AMS4634 C64200	91	7				2	Ext /Drawn Rolled Forged	10-75 75-175 > 175	300-550 200-350 190-250	300-500 200-350 190-250	570-670 500-560 500-550	30-40 40-50 40-50	160-210 140-165 120-150	7.7
CA12	NES 834 DSTAN 02-834 CA107	CW301G				91	6.2	0.6			2.2	Ext /Drawn Rolled	10-75 50-175	300-450 230-350		550-625 525-600	30-40 30-45		7.7
CA17	CA106				C61400	89.2	7.2	3.3			0.3	Extruded / Rolled	20-120		205-350	485-600	30-50	135-180	7.9
CA18 X241		CW307G	UA10N NF L14-705	2.0966	AMS4640 C63000	81	10	3.5	5	0.5		Ext /Drawn Rolled Forged	10-75 50-175 > 175		380-550 340-500 320-450	700-900 700-800 690-760	12-25 15-25 15-25	200-250 190-240 180-230	7.6
CA19		CW306G		2.0936		87.5	9.4	2.3			1.8	Ext /Drawn Rolled	10-75 75-175		300-450 250-350	650-750 625-700	15-25 15-25	150-200 140-190	7.6
CA21			GAM MM11 CuAl9Ni5Fe4			82.4	9.4	3.3	4.3	0.6		Ext /Drawn Rolled Forged	10-75 75-175 > 175	300-450 250-350 250-350		675-725 625-700 625-700	15-25 25-30 25-30	155-210 150-200 150-200	7.6
CA22		CW304G	GAM MM11 CuAl9Ni3Fe2			83.9	9.2	2.8	3.8	0.3		Ext /Drawn Rolled	10-75 75-175	250-400 250-400		640-720 620-700	20-30 20-30	155-210 155-200	7.6
CA23					C63200 MIL-B- 24059	81.2	9.3	3.7	4.5	1.3		Quench and tempered TQ50	10-75 75-175 > 175		345-500 275-400 275-400	650-800 650-800 650-750	15-25 15-30 15-30	190-230 190-230 190-230	7.6
CA28					AMS4640 C63000	82.2	10	2.5	5	0.3		Ext /Drawn Rolled	10-75 50-175		380-550 340-500	700-900 700-800	12-25 15-25	200-250 190-240	7.6
CA34					AMS4590 C63020	77.8	10.7	5.3	5.3	0.9		Solution treated and aged	Solids 25-80 Hollows > 80-200	621-780 621-750		896-1000 896-1000	6-10 6-10	HRC 26-34 26-34	7.4
CA35					C62400	86.3	10.2	3.3			0.2	Ext /Drawn Rolled	10-75 75-125		300-500 250-400	620-800 620-750	10-20 12-20	190-230 170-220	7.5
CA41 CA42 CA45	NES 833 D-STAN 02- 833 Pt 2 Issue 2	CW307G				81.5	9.3	4.2	4.7	0.3		Ext /Drawn Rolled Forged	10-75 75-175 > 175	320-450 250-400 250-360		635-750 620-700 620-700	20-30 20-30 20-30	175-220 170-220 170-210	7.6
X232 X87		CW308G	UA11N NF L14-706	2.0978		77.8	10.7	5.3	5.3	0.9		Ext /Drawn Rolled Forged	10-75 75-175 > 175	390-500 390-450 390-450		740-850 740-850 740-850	10-20 10-20 10-20	200-250 200-240 200-240	7.4
Cast																			
AB21	BS1400 AB2	CC333G			CuAl10Ni	80.5	9.7	4.3	5.2	0.3		Cast	12-160	250-350		650-750	13-20	150-200	7.6
AB28					AMS4880 C95510	81.7	10.2	2.8	5.0	0.3		Cast & HT	< 102 > 102	345-500 345-450		700-800 680-750	8-15 9-15	192-240 192-240	7.6
AB29					AMS4881 C95520	77.8	10.7	5.3	5.3	0.9		Cast & HT	Section <= 25.4 > 25.4	655-750 621-750		896-1000 860-960	3-10 2-8	HRC 28-34 28-34	7.4

For additional technical information, please see our web site. Non contractual document – For information only.



Quality

The quality of our products are well recognised within the aerospace industry.

The company holds a range of approvals with many end use customer organisations. Additionally, third party approvals have been held and upgraded over many years such that all aerospace material is produced under a system approved to ISO 9001: 2008, AS9100 Revision B Certificate No : LRQ 0902066



Customer approvals include :

- Airbus SAS
- Boeing DMS 2201
- Augusta Westland Helicopters
- BAE Systems Military and Regional
- Hawker Beechcraft
- Messier Dowty
- Rolls Royce RR9000 Sabre
- Spirit Aero