



bolton
AEROSPACE

Part of the Bolton Metals Group

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COPPER BASED ALLOYS FOR THE AEROSPACE INDUSTRY

- Superior mechanical properties
- High corrosion resistance
- High oxidation resistance
- Low coefficient of friction and antigalling properties

Meeting the demands of the international aerospace industry through :

- Our unparalleled experience
- Equipment and production technology
- Quality assurance processes and procedures



Applications include :

Bushings, bearings for landing gear, retainer cages, valve stems and guides, sleeve bearings, thrust pads, piston crowns.....

Contact Us :

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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	Zn			Rp0.2 (MPa)	Rt (MPa)	Rm (MPa)	Elongation (%)	Hardness (HB)	
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
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
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
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
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	155-210 155-190	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
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
HT31			UZ19A6 NF L14-707			66	7.2	2.8			19		Extruded Rolled Forged	15-75 75-1 > 175	600-700 560-660 560-660		830-950 780-880 780-880	10-15 10-15 10-15	245-275 245-275 245-275	8.0
PB23		CW453K CW459K			CuSn8 C52100	91.8						Sn 8	P 0.2	F45/R450 M	12-55 55-70	300-450 250-400	450-520 380-450	26-40 30-45	125-165 120-150	8.8
PB28	PB104 BS 2B 24 DTD265A		UE9P NF L14-703 H12			91.8						Sn 8	P 0.2	H12	12-65	350-530	450-570	15-40	150-190	8.8
X218	BS 3B25 DTD 498		UN3S NF L14-701			96.9			2.4	0.1	0.6		Solution treated and aged	10-50 > 50-150	490-550 450-520		600-660 570-640	15-20 12-20	170-200 170-200	8.8
X226					AMS4616 C65620	90 min		1.5		0.8	3.3	2.8	Rolled Forged	25-60 60-160	180-240 150-250		440-470 425-500	45-55 40-55	110-130 110-140	8.5
X313				2.1504		81.3	2.8	1.2	14	0.7			Rolled	12-80	600-750		840-960	10-20	240-280	8.5
X316			UN14A NF L14-702			82.9	2.7		14	0.3			Rolled Forged	12-80 80-150	600-750 550-700		840-960 750-900	10-20 7-20	240-280 220-270	8.5

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