

Aluminium Nickel Bronze



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KIM ANN ENGINEERING PTE. LTD.

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Aluminium Nickel Bronze

Grade	Specification	Cu (%)	Al (%)	Ni (%)	Fe (%)	Mn (%)	Si (%)	Sn (%)	Zn (%)	Pb (%)	Co (%)	Ultimate Tensile Strength (ksi)	Yield Strength (ksi)	Elong (4D%)	Hardness (HB)
UNS C63000	AMS 4640 ASTM B124, B150 QQ-C-465	Bal	9.0 -11.0	4.0 - 5.5	2.0 - 4.0	1.5	0.20	0.20	0.30	-	-	100 - 110	50 - 68	10	187 - 248
UNS C63020	AMS 4590 ASTM B150	min 74.5	10.0 - 11.0	4.2 - 6.0	4.0 - 5.5	1.5	-	0.25	0.30	0.03	0.20	130 - 135	90 - 100	6	min 260
UNS C63200	DTD197A CuAl10Ni5Fe5 BS 1400 AB2	80.0	10.0	5.0	4.7	0.3	-	-	-	-	-	92.4 - 116.8	35.5- 76.9	10 - 17	179 - 240
UNS C95510	AMS 4880 CuAl11Fe6Ni6 ASTM B505, B271	min 78.0	9.7 -10.9	4.5 - 5.5	2.0 - 3.5	1.5	-	0.20	0.30	-	-	105	62.5	9	192 - 248
UNS C95520	AMS 4881 CuAl10Fe5Ni5-B ASTM B505, B271	min 74.5	10.5 -11.5	4.2 - 6.0	4.0 - 5.5	1.5	0.15	0.25	0.30	0.03	0.20	125 - 130	95	2-3	-
UA11N	CuAl11Ni5Fe5 NFL14-706 BS B23, CA104	77.8	10.7	5.3	5.3	0.9	-	-	-	-	-	107 - 123	56.5 - 72.5	10 - 20	200 - 250
UZ19A6 (High Tensile Brass)	CuZn19Al6 NFL14-707	Bal	6.5	-	3.0	5.5	-	-	18.50	-	-	120.4 < Dia 2"	85.6 < Dia 2"	10	225
												113.1 Dia 2" & above	78.3 Dia 2" & above	7	

Aluminium Bronzes compared to other Bronze alloys:

- Higher strength
- Corrosion resistance
- Tarnish-resistant
- Prevent colonization by marine organisms
- Low oxidation rates at high temperatures

Applications:

- Plain bearings
- Underwater fastenings
- Aerospace landing gears components
- Oil & petrochemical industries
- Engine components for seagoing ships



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ISO 9001:2015 • AS9100D/EN9100:2018/JISQ9100:2016 • ISO 14001:2015 • ISO 45001:2018