Finecast

International Comparison of our most requested Aluminium Alloys

UK	ISO	German	US-AA_ASTM	0.2% Proof Stress (MPa)	Tensile Stress (MPa)	Elongation %	Brinell Hardness	Comment
LM4	AlSi5Cu3	AlSi5Cu4	319	70 - 110	140 - 170	2-3	65 - 80	**LM4** has characteristics allowing for moderately thin wall sectioned castings to be produced for applications where moderate mechanical properties are desirable or requiring a relatively high static loading.
LM27	AlSiCu2Mn0.5	G-AlSiCu2Mn0.5	310	80 - 90	140 - 170	1-4	70 -85	**LM27** is a versatile alloy with good castability; it is therefore suitable for most general purpose where moderate mechanical properties are desirable.
LM6	AlSi12	G-AlSi12	413	60 - 70	160 - 190	5-10	50 - 55	**LM6** is ideal material choice for applications that require thin sections and intricate large castings. As this material has high corrosion resistance it is ideal for marine applications.
LM16	AlSi5Cu1Mg	G-AlSi5Cu1Mg	355	220 - 280	230 - 290	1	100	**LM16** has excellent fluidity and is equally suitable for sand casting, primarily suitable for high performance marine applications where pressure tightness is key typically required.
LM25	AlSi7Mg	G-AlSi7Mg	356	80 - 100	130 - 150	2	55 - 65	**LM25** is a commercial alloy mainly used where good standard mechanical properties are required to achieve a general casting soundness.
BS2L99	AlSi7Mg0.3	G-AlSi7Mg0.3	356	185	230	2	75	**BS2L99** is an aluminium alloy that is typically used in applications where excellent Castability, pressure tightness and good resistance to corrosion are required. Predominantly used in automotive and aerospace applications.
-	AlSi9Cu1Mg	G-AlSi9Cu1Mg	A354	320 - 350	380 - 400	8-12	75	**A354** has excellent castability, weldability, pressure tightness and corrosion resistance, Heat treatable delivering high strength and elongation required for the most demanding structural applications.

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BSL169	AlSiMg0.6	G-AlSi7Mg0.6	A357	240	290	3	80	**BSL169** has high strength and toughness used in critical aerospace applications.
BS154	AlCu4MgTiAg	G - AlCu4MgTiAg	A201	420	480	4.7	110	**BS154** Superior performance to aluminium copper alloys, with the castability traits of aluminium silicon. This material grade is used in critical body structure casting in defence and Aerospace applications.
	AlCu4MgTi	G - AlCu4MgTi	A204	193	310	6	110	**A204** is a near eutectic aluminium-cerium (Al-Ce) alloy with good mechanical properties at high temperatures if not a good or better than the aluminium-silicon (Al-Si) alloys.
BS155	AlCu4MgTi	G - AlCu4MgTi	A206	250 - 380	390 - 440	10	100 - 110	**BS155** Superior performance to aluminium copper alloys, with the castability traits of aluminium silicon. This material grade is used in critical body structure casting in defence and Aerospace applications.

Mechanical properties as measured on the separate cast test bars

Nickel & Copper Based Aluminium Bronze Alloys

We specialize in the development and manufacture of Class 1 high-integrity copper and nickel-based castings destined for Naval, Defence applications and corrosion resistant environments.

Our most requested Aluminium Bronze Alloys

Standard Specification	European Spec	Tensile Strength	0.2 % Proof Strength	Elongation %
NES 747 (Part 1)	--	600	230	15
NES 747 (Part 2)	--	620	250	15
NES 747 (Part 3)	--	640	250	13
NES 747 (Part 4)	--	620	250	15
AB1 -Aluminium Bronze	CuAl10Fe	650	270	40
AB2 - Nickle Aluminium Bronze	CuAl10Fe5Ni5	740	360	20
AB3 - Aluminium Bronze	CuAl6Si2Fe	500	190	30

Mechanical properties as measured on the separate cast test bars

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