

ALUMINIUM BAR AND PLATE

TYPICAL APPLICATIONS

Aerospace & defence components
High performance autosport applications

PRODUCT DESCRIPTION

A strong aluminium alloy containing nominally 2% copper and 1.5% magnesium. Produced as bar, rod, plate and tube. Also available as copper clad sheet and strip. Solution treated and artificially aged to achieve the T6 condition or with the addition of controlled stretching to achieve the T6511 temper. 2618A can be employed to a maximum of 300°C and retains mechanical strength relatively well to around 200°C and above. The alloy has a density of 2.75 g/cc.

Aerospace Equivalent (bar) - DTD 5014A
General Engineering Euronorm - EN 573 EN AW-2618A (composition) (AlCu2Mg1.5Ni)

Old BS (pre-1980) Specification - H16

STOCK RANGE

Up to 5 in. (127mm) diameter and several flat bar sizes.
Other sizes and forms readily available.

Available in a range of tempers as well as forging bar (F condition)

CUT TO SIZE SAWN BLANKS

Cut to length in house to tolerances - Nil + 1.6mm

MACHINABILITY

Good.

CORROSION RESISTANCE

Resistance to Atmospheric Attack

Fair

SURFACE TREATMENT

Anodising

Protective - Fair
Bright - Unsuitable
Hard - Fair
Colour - Fair

JOINING

Brazing & Soldering - Not Recommended
Oxy-gas - Not Recommended
Inert Gas - Not Recommended

CHEMICAL COMPOSITION (WEIGHT % FOR DTD 5014A)

	Al	Si	Fe	Cu	Mn	Mg	Cr	Ni	Zn	Ti + Zr	Pb & Sn	Ti
Min	Rem		0.9	1.8		1.2		0.8				
Max	Rem	0.25	1.4	2.7	0.2	1.8	-	1.4	0.1	0.2	0.05	0.2

MECHANICAL PROPERTIES (MINIMA FOR T6 CONDITION BAR/SECTIONS – DTD 5014A)

Thickness >, mm	Thickness =/<, mm	0.2% PS, MPa	UTS, MPa	Elong, % on 50 mm
-	10	320	400	5
10	100	340	420	7

TECHNICAL SALES ASSISTANCE

Our resident team of qualified metallurgists and engineers will be pleased to assist further on any technical topic.

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