

Aluminium Plate

Typical Applications

- Aerospace & Defence Components
- High Technology Applications

Product Description

A strong 3.9 to 5.0% Copper alloy, rolled plate specification. Solution treated, artificially aged and stress relieved (control stretched) to achieve the T651 condition.

General Engineering Equivalent	- 2014AT651
General Engineering Euronorm	- EN 485/515/573
Old BS Spec	- HP15TF (BS1470)
AECMA Euronorm	- None

Production Tolerances

Manufacturing limits are as stated in the Section 14 of BS L100 – Tables (F1, 2, 5, 7 & 8). For further assistance please contact our Sales Dept / Laboratory.

Cut Size to Sawn Blanks

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

Surface Treatment

Anodising

Protective - Fair
Bright - Unsuitable
Hard - Good
Colour - Fair (Dark Colour Only)

Plating

Very Good

Vitreous Enamelling

Unsuitable

Weldability

Brazing & Soldering - Not Recommended
Oxygen - Not Recommended
Inert Gas - Not Recommended
Resistance, Spot, Beam - Excellent

Machinability

Good.

Corrosion Resistance

Resistance to Atmospheric Attack - Poor

Chemical Composition (weight %)

	Al	Si	Fe	Cu	Mn	Mg	Cr	Ni	Zn	Ti+Zr	Pb	Sn
Min	Rem	0.50		3.9	0.40	0.20						
Max	Rem	0.90	0.50	5.0	1.2	0.80	0.10	0.20	0.20	0.2	0.05	0.05

Mechanical Properties (Minima for T651 Condition)

Direction of Test Sample	Thickness Range (mm)		0.2% Proof Stress (MPa)	Tensile Strength (MPa)	Elongation on 50mm (%)	Elongation on 5.65√S ⁰ (%)
	Over	Up to and inc.				
Long Traverse	6	12.5	410	460	7	-
	12.5	25	410	460	-	6
	25	40	400	450	-	5
	40	63	390	430	-	5
	63	90	390	430	-	4
Short Traverse	90	115	370	420	-	4
	115	140	350	410	-	4
	25	90	360	420	-	2.5
	90	115	340	410	-	2.5
Longitudinal	115	140	340	400	-	2.5
	25	40	410	450	-	6
	40	90	400	430	-	6
	90	115	380	430	-	6
	115	140	360	420	-	6

Technical Assistance

Our knowledgeable staff backed up by our resident team of qualified metallurgists and engineers, will be pleased to assist further on any technical topic.

www.smithmetal.com

sales@smithmetal.com

Biggleswade 01767 604604	Birmingham 0121 7284940	Bristol 0117 9712800	Chelmsford 01245 466664	Gateshead 0191 4695428	Horsham 01403 261981	Leeds 0113 3075167
London 020 72412430	Manchester 0161 7948650	Nottingham 0115 9254801	Norwich 01603 789878	Redruth 01209 315512	Verwood 01202 824347	General 0845 5273331



1930

All information in our data sheet is based on approximate testing and is stated to the best of our knowledge and belief. It is presented apart from contractual obligations and does not constitute any guarantee of properties or of processing or application possibilities in individual cases. Our warranties and liabilities are stated exclusively in our terms of trading. © Smiths Metal Centres 2018

