

# metalweb

## M82 Aluminium Precision Plate – 6082 T651

Imperial Sizes Exclusively Available From metalweb

### High Quality Machineable Plate

#### Key benefits of M82 plate:

- **All tolerances guaranteed before and after sawing**
- **Fantastic surface finish**
- **Great stability and flatness**

M82 plate offers gauge and flatness tolerances to tighter than 0.7EN specifications. It also possesses enhanced surface finish and post machining stability. Already widely used by many leading CNC machinists and precision engineering companies M82 offers a great combination of exceptional attributes.

M82 plate is suited to a wide range of end use applications from precision tooling through to component manufacture and from electronic vacuum chamber production through to hydraulic industries.

M82 is also consistent in machineability between plates supplied in any batch so there is no need to change machine setups. The plate surface is aesthetically pleasing and needs no further polishing or finishing. The plate also anodises well.



If you haven't tried M82 plate before,  
please contact metalweb for a free test sample!

Please call one of our UK sales branches to enquire for any of these other materials or send an email to [info@metalweb.co.uk](mailto:info@metalweb.co.uk)



### Sizes Available:

Maximum plate size available in each thickness is 3020mm x 1520mm – but all plates can be cut to suit your exact requirements below these maximum dimensions.

### Following Thicknesses are available:

Thickness			Flatness		
			Tolerances		
Metric	Imperial	Tolerance	Longitudinal mm/m max.	Transverse mm/m max.	Partial deviation in any 300mm
6.35mm	¼"	+/- 0.22	3	2	1
10.0mm		+/- 0.32	2	2	1
12.7mm	½"	+/- 0.42	2	2	1
16.0mm		+/- 0.42	2	2	1
19.05mm	¾"	+/- 0.49	2	2	1
20.0mm		+/- 0.49	2	2	1
25.0mm		+/- 0.53	2	2	1
25.4mm	1"	+/- 0.53	2	2	1
30.0mm		+/- 0.53	2	2	1
31.75mm	1 ¼"	+/- 0.55	2	2	1
38.1mm	1 ½"	+/- 0.60	2	2	1
40.0mm		+/- 0.60	2	2	1
45.0mm		+/- 0.70	2	2	1
50.0mm		+/- 0.75	2	2	1
50.8mm	2"	+/- 0.80	2	2	1

N.B. these thicknesses are exclusive to metalweb in the UK!

- Thickness tolerances are produced to 0.7 x EN limits (EN 485-3 / BSEN485-3)
- All tolerances guaranteed before and after sawing
- All plates finished on top and bottom surfaces
- Plates comply with EN 573-3, EN 485-2, EN 485-3, BSEN 573-3, BSEN 485-2, BSEN 485-3.

OTHER CHARACTERISTICS	
Corrosion Resistance	Good
Weldability	Good
Formability	Good
Machinability	Good
Anodising	Good
Brazeability	Good

MECHANICAL AND PHYSICAL PROPERTIES			
PROPERTIES	5mm - 12.5mm	Over 12.5mm	UNIT
Ultimate Tensile Strength (min)	300	295	MPa
0.2% Yield Strength (min)	255	240	MPa
Elongation (min)	9	8	%
Typical Fatigue Strength	110		MPa
Typical Hardness Brinell	95		HB
Density	2.70		g/cm <sup>3</sup>
Thermal Conductivity at 100°C	180-189		W/m°C
Electrical Resistivity at 20°C	0.038 x 10 <sup>-6</sup>		Ωm
Modulus of Elasticity	70		GPa
Coefficient of thermal expansion	24 x 10 <sup>-6</sup>		/°C
Melting Range	555-650		°C

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of our UK  
offices today:**

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