

6082 Aluminium Plate Tooling Plate

Aluminium Alloy 6082 is the most commonly used alloy for machining. A large amount of manganese is added to control the grain structure, which in turn results in a stronger alloy. 6082 is the strongest of the 6000 series alloys and has replaced 6061 in many applications due to its extra strength.

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Rectangular sections from 25mm³ up to 430 x 430 x 150mm can be delivered fine milled on all six faces to -0+0.1mm and with squareness guaranteed to 0.1mm/m.

Chemical Composition

Si	0.7-1.3	Fe	0.0-0.5
Cu	0.0-0.1	Mn	0.4-1.0
Mg	0.6-1.2	Cr	0.0-0.25
Ni	-	Zn	0.0-0.2
Ti	0.0-0.1		

Physical Properties

6mm-12.5mm

Hardness, Brinell Proof	91 HB
Stress	255 Mpa min
Tensile Strength	300 Mpa min
Elongation	9% min

12.5mm-100mm

Hardness, Brinell Proof	89 HB
Stress	240 Mpa min
Tensile Strength	300 Mpa min
Elongation	7.5%

12.5mm-100mm

Hardness, Brinell Proof	84 HB
Stress	240 Mpa min
Tensile Strength	275 Mpa min
Elongation	6%