

# ALUMINIUM ALLOY - COPPER 2011 – FREE CUTTING ALUMINIUM

## RELATED SPECIFICATIONS:

Australia	AS1866:1997
International USA, Canada, Australia, Japan, Italy	2011
Other European Countries	ISO209-1 AlCu6BiPb

## DESCRIPTION:

Free machining aluminium that has excellent machinability qualities. The T4 temper is the choice when high productivity at moderate strength is the key. The T451 temper offers excellent deep hole drilling characteristics at a lower strength level. When higher strength is required – T6 is the preferred choice.

## APPLICATIONS:

Screw machine products not requiring decorative anodising (RATING D/D), gears, machine parts, pipe stems, meter shafts, industrial connectors. The use of a chip breaker is not necessary in most cases. Welding is not recommended due to the lead content. It also has low corrosion resistance.

## MECHANICAL PROPERTIES:

Quenched and tempered in accordance with EN 10083-1 + A1. Other heat treatment conditions can be supplied by special arrangement.

Temper	Thickness mm	Yield stress $R_{p0.2}, N/mm^2$ , min	Ultimate tensile Stress, $R_m, N/mm^2$	Elongation $A_5, \%$ , min.
T4	ALL	275	125	14
T6	<25	350	220	8
	27 – 75	345	220	8
	>75	340	200	8

T4 – Solution heat treated and cooled from an elevated temperature shaping process and **naturally** aged to a substantially stable condition – applies to products that are not cold worked after solution heat treatment

T4(51) – Stress relieved temper by stretching material after heat treatment solution and cooling.

T6 – Solution heat treated and cooled from an elevated temperature shaping process and **artificially** aged to a substantially stable condition – applies to products that are not cold worked after solution heat treatment

## ROUND BAR SIZES AVAILABLE EX STOCK (MM):

T4 = 10/20/30/50/55/70/75/90/110/120/130/140

T6 = 39/42/50/60/65/70/75/80/90/100/101.6/120

## COLOUR CODE: LIGHT BROWN

