

High Strength Alloy Plate

Typical Applications

- Stamping tools
- Punching tools
- Highly stressed components
- Potential replacement for low & medium strength steels
- Machine construction

Product Description

Contal is a high strength alloy plate product which has very high zinc, magnesium and copper content. Based on the 7xxx series alloys, Contal has a higher yield and ultimate strength than general commercial aluminium alloys. The material benefits from good machinability. Corrosion resistance is moderate in inland atmosphere and critical in marine atmosphere. The alloy is supplied in the T651 temper.

Key features

- Stronger than general commercial aluminium alloys
- Good machinability
- Excellent strength and fatigue properties
- Up to 80% machining time saving when compared to steel plate
- Available in T651 temper

Availability

Plate

Machinability

Good

Weldability

TIG/MIG welding is very difficult. Resistance welding is good.

Mechanical Properties*

Thickness Range	Rp.0.2 [MPa]	Rm [MPa]	Elongation [%]	Hardness HB
10 - 25 mm	520	590	8	170
25 - 50 mm	510	580	8	165
50 - 112 mm	500	570	6	165

* indicative values

Physical Properties

Density	2.81	g/cm ³
Elastic Modulus	72000	MPa
Linear thermal expansion coeff. (20 to 100°C)	23.6	10 ⁻⁶ k
Thermal conductivity	115 - 135	W / mK
Electrical conductivity (20°C)	17 - 20	m/Ωmm ²

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.

UK Service Centres:

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 Smiths Biggleswade **01767 604 704**
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