

## ALUMINIUM EXTRUSION

### TYPICAL APPLICATIONS

Aerospace & Defence Components  
High Technology Applications

### PRODUCT DESCRIPTION

A medium strength extruded bar and profile solution heat-treated, artificially aged and usually stocked controlled stretched to achieve the 'T6511' condition. Scope of specification officially ends at 200mm. However, controlled stretched bar is made, conforming to full spec up to 10"(254mm) diameter dependant on shape. Controlled stretching is not always possible on profiles.

General Engineering Equivalent - 6082T6511  
General Engineering Euronorm - EN 573 / 755  
Old BS - HE30TF (BS1474) controlled stretched  
AECMA Euronorm - BS EN 2326, 2636  
BS Pr EN 4273, 4274

### STOCK RANGE

**Round Bar** : 3/16" to 10" Diameter  
(4.75 to 254mm)  
**Flat & Squares** : Various

### CUT TO SIZE SAWN BLANKS

Cut to length in house to tolerances - Nil + 1.0mm

### MACHINABILITY

Very good.

### CORROSION RESISTANCE

#### Resistance to Atmospheric Attack

Good

### SURFACE TREATMENT

#### Anodising

Protective - Good  
Bright - Fair  
Hard - Good / Very Good  
Colour - Good

#### Plating

Special pre-treatment necessary to achieve successful results

#### Vitreous Enamelling

As Plating.

### WELDABILITY

Brazing & Soldering - Good  
Oxygen - Fair  
Inert Gas - Very Good  
Resistance, Spot, Beam - Very Good

### PRODUCTION TOLERANCES

Manufacturing limits are as stated in the Section 5 of BS 4L100 – Tables 5 (C1, 2, 3, 4, 5, 6, 7 & 8). For further assistance please contact our Sales Dept / Laboratory.

### CHEMICAL COMPOSITION (WEIGHT %)

	Al	Si	Fe	Cu	Mn	Mg	Cr	Ni	Zn	Ti	Pb	Sn
Min	REM	0.7			0.4	0.5						
Max	REM	1.3	0.5	0.1	1.0	1.2	0.25	0.1	0.2	0.2	0.05	0.05

### MECHANICAL PROPERTIES (MINIMA)

Size Range (mm)		Tensile Strength (MPa)	0.2% Proof Stress (MPa)	Elongation on $5.65 \sqrt{S_0}$ (%)	Elongation on 50mm (%)
Over	Up To & Including				
-	20	295	255	8	7
20	150	310	270	8	-
150	200	280	240	5	-

NB: Figures shown above are for 'T6' condition.

### TECHNICAL SALES ASSISTANCE

Our resident team of qualified metallurgists and engineers will be pleased to assist further on any technical topic.

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