

Chemical Composition Limits (in %)

Cu	Mg	Si	Fe	Mn	Zn	Ti	Cr	Other elements	
								Each	Total
0,1	0,6 1,2	0,7 1,3	0,5	0,4 1,0	0,2	0,1	0,25	0,05	0,5

Outstanding Characteristics:

Medium strength alloy with good corrosion resistance.

Standard Commodities:

Plate; sheet; extrusions.

Typical Uses:

For stressed structural applications, such as bridges, cranes, roof trusses, transport applications. Beer barrels; milk churns. Bridle plates for man cages and ore skips.

Typical Physical Properties

Density	2,70	g/cm ³
Modulus of Elasticity	70	GPa
Modulus of Rigidity	26,5	GPa
Melting Range	555-650	°C
Specific heat between 0-100°C (273-373 K)	0,88	J/gK
Coefficient of linear expansion between 20-200°C (293-473K)	24 x 10 ⁻⁶	/K
Thermal Conductivity at 100°C (298K)	180-189	W/mK
Resistivity at 20°C (293 K)	0,038 x 10 ⁻⁶	Ωm

Other Characteristics

Corrosion Resistance	:	Good
Weldability	:	Good
Formability	:	Good
Machinability	:	Good
Anodising	:	Good
Brazeability	:	Good

Mechanical Properties

Commodity And Temper	Gauge mm	0,2% Proof Stress MPa	Ultimate Tensile Strength MPa	Elongation A5 %	Brinell Hardness HB	Ultimate Shear Strength MPa
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Sheet

O	0,2 – 3,0	(60)	(125) 155	16 (30)	(32)	
T4	0,2 – 3,0	120 (200)	200 (250)	15 (18)	(70)	120 (155)
T6	0,2 – 3,0	255 (305)	295 (330)	8 (13)	(100)	175 (205)

Plate

T4	up to 25	115 (185)	200 (230)	15 (22)	(60)	120 (160)
T6	up to 25	240 (290)	295 (325)	8 (10)	(95)	175 (205)

Extrusions

O	up to 130		(170)	14
F	up to 75		110	12
T4	up to 75	120 (190)	190 (275)	14 (18)
T6	up to 20	255 (315)	295 (330)	7 (10)
T6	20-75	270 (320)	310 (345)	7 (12)
T3	up to 6	115	215	12
T3	6-10	115	215	14
T8	up to 6	255	310	7

Heat Treatment**Solution Heat Treatment**

Temper	Temperature °C	Time h	Quenching	Temperature °C	Time h
T6	520 ± 3		In water	175 ± 3	10

Ageing**Annealing**

Temperature °C	Time h		
340-360	2	To soften partially	* Cool not faster than 15°C/hour to 250°C and withdraw from furnace.
340-360	2*	To soften fully	