

AA 6061

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Euralco Europe BV
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BRIEF DESCRIPTION

6061 T6(51) is a highly versatile, medium strength alloy whose main characteristics are corrosion resistance, weldability and good mechanical strength. It is mainly used in machine parts and welded constructions.

PROCESSING METHODS

Weldability

WIG/MIG filler alloy excellent
AA 4043
AA 5356
By resistance excellent

Anodizing

technical excellent
decorative good

Machinability

good

Corrosion Behaviour

excellent in inland atmosphere
good in marine atmosphere

AVAILABILITY

6061 sheet and plate is available in temper 0 and T6 up to 6mm and T651 above 0.25" (quenched – stretched – artificially aged) in the following dimensions :

Thickness	Max. width
0.025" – 0.08"	86"
0.81" - 4"	78"
4" - 6"	60"

CHEMICAL COMPOSITION (weight %)

Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti
0.4	max.	0.15	max.	0.8	0.04	max.	max
0.8	0.7	0.40	0.15	1.2	0.35	0.25	0.15

PHYSICAL PROPERTIES (nominal values)

Density	0.098 Lbs/cu inch
Elastic Modulus	10000 KSI
Lin. thermal expansion coefficient (68°-212°F)	13.1/°F
Thermal conductivity (77°F)	1160 english units
Electrical Conductivity (68°F)	43% (of IACS)

MECHANICAL STRENGTH

Typical tensile properties (Temper 0 / ASTM B209)

Thickness (over ... to)	Rm [KSI]	Rp0.2 [KSI]	A50 [%]
0.025" - 0.128"	20	10	17
0.129" - 0.249"	20	10	19

Typical tensile properties (Temper T6(51) / ASTM B209)

Thickness (over ... to)	Rm [KSI]	Rp0.2 [KSI]	A50 [%]
0.025" - 0.249"	47	40	13
0.25" - 0.499"	47	40	12
0.5 - 4"	47	39	8

