

Technical Datasheet

XXXX
AA 6056

ALCAN ENGINEERED PRODUCTS



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BRIEF DESCRIPTION

XXXX is a medium-high strength alloy with good corrosion resistance, mechanical strength and welding properties.

The combination of these three properties enables it to be used for machine parts and welded constructions.

PROCESSING METHODS

Weldability

- TIG/MIG filler alloy excellent
AA 4043
AA 4047
- by resistance excellent

Anodizing

- technical excellent
- decorative good

Machinability good

Corrosion behaviour

- good in inland atmosphere
- critical in marine atmosphere

AVAILABILITY

XXXX plates are available in temper T651 (quenched – stretched – artificially aged) up to the following sizes:

Thickness (over... to ...)	Max. width
0.3" – 4.0"	88.6"
4.0" – 4.8"	79.5"
4.8" – 5.9"	72.8"

CHEMICAL COMPOSITION (weight %)

Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti +Zr
0.7	max.	0.5	0.4	0.6	max.	0.1	max.
1.3	0.5	1.1	1.0	1.2	0.25	0.7	0.20

PHYSICAL PROPERTIES (nominal values)

Density	0.098 lb/in. ³
Elastic modulus	10.1 · 10 ⁶ psi
Lin. thermal expansion coefficient (68° - 212°F)	13.0 μin./in.°F
Thermal conductivity (Temper T651, 77°F)	95 Btu/ft·h·°F
Electrical conductivity (Temper T651, 68°F)	43 %IACS

MECHANICAL STRENGTH

Min. tensile properties (Temper T651)

Thickness (over ... to)	Tensile [ksi]	Strength [ksi]	Elongation [% in 2" or 4D]
0.250 - 1.500	53	44	5
1.500 - 3.000	54	47	5
3.000 - 5.900	55	47	4

Typical strength for various thicknesses

Thickness (over ... to)	Tensile [ksi]	Strength [ksi]	Elongation [% in 2" or 4D]	HB
0.250 - 1.500	54	50	8.5	125
1.500 - 3.000	58	47	8.0	120
3.000 - 5.900	58	47	7.0	115