

SERIES 6000

AW 6061 (AL Mg1SiCu)

The aluminum alloy AW6061 is a hardened alloy, which contains Magnesium, Silicon and Aluminum as its main elements. It has good mechanical properties and good welding ability, being one of the most common alloys for general use, especially structures that require good corrosion behavior.

CHEMICAL COMPOSITION (WEIGHT %) (EN 753 - 3)

| ELEMENTS | Si | Fe | Cu | Mn | Mg | Cr | Zn | Ti | Al |
|----------|-----|-----|------|------|------|------|------|------|------|
| Minimun | 0.4 | - | 0.15 | - | 0.8 | 0.04 | - | - | - |
| Maximum | 0.8 | 0.7 | 0.05 | 0.15 | 0.05 | 0.35 | 0.25 | 0.15 | Rest |

MECHANICAL PROPERTIES (EN 755 - 2)

| TEMPER | THICKNESS | Rm* | Rp0.2* | A | HB - BRINELL |
|-------------|-----------|-------|--------|-----|--------------|
| | (mm) | (MPa) | (MPa) | (%) | HARDNESS |
| T6 and T651 | 15-82 | 260 | 240 | 8 | 95 |

^{*}Minimum values.





MAIN CHARACTERISTICS

- Low mechanical strength
- Good corrosion resistance
- Good machining and folding
- Good polishing ability
- Good weldability

APPLICATIONS

- Automotive and transport industry
- General industry
- Shipbuilding industry
- Aircraft structures
- Hydraulic systems



POLISHING



MACHINABILITY



WELDABILITY



CONDUCTIVITY ELECTRICAL/THERMAL



BRINELL HARDNESS



DENSITY

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PHYSICAL PROPERTIES

| DENSITY | 2.70 kg/m^3 |
|------------------------------|------------------------|
| MODULUS OF ELASTICITY | 70 000 MPa |
| LINEAR EXPANSION COEFFICIENT | 23 10 ⁻⁶ /K |
| THERMAL CONDUCTIVITY | 170-200 W/mK |
| ELECTRICAL CONDUCTIVITY | 22-30 MS/m |

DELIVERY PROGRAM

PLATES

| THICKNESS (mm) | DIMENSIONS (mm) | STOCK T651 |
|-------------------|--------------------|---------------|
| 15,87 | 1536 x 3670 mm | • |
| 19,05 | 1536 x 3670 mm | • |
| 25,04 | 1536 x 3670 mm | • |
| 38,10 | 1536 x 3670 mm | • |
| 40,00 | 1520 x 3020 mm | • |
| 44,45 | 1536 x 3670 mm | • |
| 50,80 | 1520 x 3020 mm | • |
| 82,55 | 1536 x 3670 mm | • |



