**EN AW-6082**

### Alloy's characteristics
- **Alloy:** EN AW-6082 [AlSi1MgMn]
- **Type of Alloy:** heat treatable
- **Temper:** T651
- **Surface:** rolled skin

### Mechanical Properties 1)
- **Yield strength R_p0.2 [MPa]:** 240 – 260
- **Ultimate tensile strength R_m [MPa]:** 295 – 310
- **Elongation A50 [%]:** 7 – 10
- **Hardness HBW:** 89 – 94

### Physical Properties 1)
- **Density [g/cm³]:** 2.70
- **Module of elasticity [GPa]:** 70
- **Electrical conductivity [MΩ·mm²]:** 24 – 32
- **Coeff. of thermal expansion [K⁻¹·10⁻⁶]:** 23.4
- **Thermal conductivity [W/m·K]:** 170 – 220
- **Specific heat capacity [J/kg · K]:** 896

### Processing Characteristics 2)
- **Dimensional stability:** 4 – 5
- **Machinability:** 1 – 2
- **Erodability:** 1
- **Weldability (Gas / TIG / MIG / Resistance / EB):** 3 / 2 / 1 / 3 / 1
- **Corrosion resistance (seawater / weather/ stress cracking):** 2 / 1 / 1
- **Use at temperatures (max °C long/short terms):** 120 / 160
- **Anodising (technical / decorative / hard-):** 1 / 3 / 1
- **Polishability:** 2
- **Etching:** 2 – 3
- **Contact with food (according to EN 602):** yes

### Tolerances
- **Thickness in [mm]:**
  - 20 – 80: EN 485-3
  - Cuttings: DIN ISO 2768-1m

### Standard Lieferprogramm
- **Plate Dimension [mm]:** 1.520 x 3.020 in thickness of 20 – 80 mm
- **Plate Thickness [mm]:** 20; 25; 30; 40; 60; 80

### Characteristics:
- very good anodizing capability
- high resistance to stress corrosion cracking
- good corrosion resistance
- very good weldability
- good thermal conductivity

### Applications:
- Welded constructions
- Shipbuilding
- Cooling technology and vulcanisation
- Food industry

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1) Typical values at room temperature
2) Ratings evaluation rating from 1 (very good) to 6 (inapplicable)
3) Without loss of strength after cooling down.
4) Technical anodising only - no warranty towards optical demands