

## Aluminium Alloy 6060 (EN AW 6060 AlMgSi)

According to EU directives: 2000/53/CE (ELV) - 2011/65/CE (RoHS II)

- Aluminium-magnesium-silicium alloy.
- It is principally used in building, transportation and furniture where high mechanical characteristics are not requested.
- Excellent for any kind of anodizing.

|   |         | THICKNESS |           |           |           |           |
|---|---------|-----------|-----------|-----------|-----------|-----------|
|   |         | ≤ 25      | ≤ 5       | 5 ≤ 25    | ≤ 5       | 5 ≤ 25    |
|   |         | T4        | T5        | T5        | T6        | T6        |
| <b>Physical Properties</b>                              |         |           |           |           |           |           |
| <b>Mechanical Properties</b>                            |         |           |           |           |           |           |
| Ultimate tensile strenght Rm[N/mm <sup>2</sup> ]        | minimal | 120       | 160       | 140       | 190       | 170       |
| Yield strenght Rp 0,2                                   | minimal | 60        | 120       | 100       | 150       | 140       |
| Elongation A <sub>s</sub>                               | minimal | 16        | 8         | 8         | 8         | 8         |
| Hardness Brinell HB (information only)                  | minimal | 50        | 60        | 60        | 70        | 70        |
| <b>Physical properties</b>                              |         |           |           |           |           |           |
| Density [kg/dm <sup>3</sup> ]                           |         | 2,70      | 2,70      | 2,70      | 2,70      | 2,70      |
| Module of elasticity [Gpa]                              |         | 69        | 69        | 69        | 69        | 69        |
| Electrical conductivity at 20 °C [m/Ω-mm <sup>2</sup> ] |         | 33        | 33        | 33        | 33        | 33        |
| Coefficient of thermal expansion [10 <sup>-6</sup> /K]  |         | 23,2      | 23,2      | 23,2      | 23,2      | 23,2      |
| Thermal conductivity [w/m.K]                            |         | 201       | 201       | 201       | 201       | 201       |
| Melting point range °C                                  |         | 615 ÷ 655 | 615 ÷ 655 | 615 ÷ 655 | 615 ÷ 655 | 615 ÷ 655 |
| <b>Processing Characteristics</b>                       |         |           |           |           |           |           |
| Machinability   |         | ++        | ++        | ++        | ++        | +++       |
| Dimensional Stability                                   |         | +++       | +++       | +++       | +++       | +++       |
| Erodability   |         | ++        | ++        | ++        | ++        | +++       |
| Weldability   |         | ++++      | ++++      | ++++      | ++++      | ++++      |
| Polishability   |         | +++       | +++       | ++++      | +++       | ++++      |
| Anodizing Decorative                                    |         | +++++     | +++++     | +++++     | +++++     | +++++     |
| Anodizing Hard  |         | +++++     | +++++     | +++++     | +++++     | +++++     |
| Corrosion resistance (weather)                          |         | +++++     | +++++     | +++++     | +++++     | +++++     |
| Corrosion resistance (seawather)                        |         | ++++      | ++++      | ++++      | ++++      | ++++      |

### Legend - Processing Characteristics

Excellent +++++      Good ++++      Accettable +++      Mediocre ++      Inadequate +      Not suitable -

| CHEMICAL COMPOSITION |           |           |      |           |      |      |      |      |    |    |    |    |          |           |           |
|----------------------|-----------|-----------|------|-----------|------|------|------|------|----|----|----|----|----------|-----------|-----------|
| DENOMINATION         | Si        | Fe        | Mn   | Mg        | Cu   | Zn   | Cr   | Ti   | Ni | Pb | Bi | Sn | IMPURITY | ALUMINIUM |           |
| 6060                 | 0,30-0,60 | 0,10-0,30 | 0,10 | 0,35-0,60 | 0,10 | 0,15 | 0,05 | 0,10 |    |    |    |    | 0,05     | 0,15      | remainder |