

## Data sheet

**EN AW-2014** based on DIN EN 573

AlCu4SiMg

### Chemical composition: (ref.values/mass %)

| Si        | Fe  | Cu        | Mn         | Mg         | Cr   | Zn   | Ti   | Ti + Zr <sup>1)</sup> | other elements          |
|-----------|-----|-----------|------------|------------|------|------|------|-----------------------|-------------------------|
| 0,5 – 1,2 | 0,7 | 3,9 – 5,0 | 0,40 – 1,2 | 0,20 – 0,8 | 0,10 | 0,25 | 0,15 | 0,2                   | single 0,05; total 0,15 |

<sup>1)</sup> by agreement

### Mechanical properties: (ref.values DIN EN 586-2)

| Cross-sectional dimension in mm <sup>2</sup> | Temper (DIN EN 515) | Yield strength           |                 | Tensile strength     |     | Elongation at break |   | Hardness HBW 2,5/62,5<br>Guide value | Fatigue strength in MPa <sup>3</sup> |
|----------------------------------------------|---------------------|--------------------------|-----------------|----------------------|-----|---------------------|---|--------------------------------------|--------------------------------------|
|                                              |                     | R <sub>p 0,2</sub> (MPa) |                 | R <sub>m</sub> (MPa) |     | A (%)               |   |                                      |                                      |
|                                              |                     | T <sup>1)</sup>          | L <sup>2)</sup> | T                    | L   | T                   | L |                                      |                                      |
| ≤ 100                                        | T 6                 | 360                      | 370             | 430                  | 440 | 3                   | 6 | 120                                  | 145                                  |

T<sup>1)</sup> Transverse direction to the grain flow / L<sup>2)</sup> Parallel to the grain flow // These are the minimum values according to the standard.

### The following information applies to the above alloy

- Additional features:**

**Weldability:**      **Corrosion resistance**

Gas: 6                  Seawater: 4  
TIG: 6                Weather: 3  
MIG: 6

- Delivery forms:**

Die forging or open die forging.

- Special material properties:**

Hot and cold hardenable alloy with very high strength properties, almost approaching those of AlZnMgCu materials in the artificially aged condition.

- Application:**

Automotive and mechanical engineering, aerospace and defence technology.

#### Notes:

1. Cross-sectional dimensions: For larger cross-sections as specified above, the mechanical properties are basically to be determined per each component.
2. Source specifications for flexural fatigue strength. [www.alu-schlüssel.de](http://www.alu-schlüssel.de)
3. Corrosion+welding: Aluminium material data sheet. (evaluation scale: 1= excellent; 2= good; 3=acceptable; 4=inadequate; 5=not recommended; 6= unsuitable)
4. All standards in the currently valid version.