

Material data sheet

EN AW-2007 [AlCu4PbMgMn]

1) Chemical composition according to DIN EN 573-3 [% by mass, remainder Al]

| % | Si | Fe | Cu | Mn | Mg | Cr | Ni | Zn | Ti | Bi | Sn | Pb | Each |
|-------------|------|-----|-----|------|------|------|------|------|------|------|-----|-----|------|
| min. | - | - | 3.3 | 0.50 | 0.40 | - | - | - | - | - | - | 0.8 | - |
| max. | 0.80 | 0.8 | 4.6 | 1.0 | 1.8 | 0.10 | 0.20 | 0.80 | 0.20 | 0.20 | 0.2 | 1.5 | 0.30 |

2) Mechanical properties according to DIN EN 754-2 drawn / DIN EN 755-2 extruded

| Temper | Dimensions in mm | | R _m MPa | | R _{p0.2} MPa | | A% | A _{50mm} % | HBW |
|---|------------------|----------------|--------------------|------|-----------------------|------|------|---------------------|---------------|
| | D ^a | S ^b | min. | max. | min. | max. | min. | min. | Typical value |
| T3^c | ≤ 30 | ≤ 30 | 370 | - | 240 | - | 7 | 5 | 95 |
| | 30<D≤80 | 30<S≤80 | 340 | - | 220 | - | 6 | - | 95 |
| T4/T4510 T4511^c | ≤80 | ≤ 80 | 370 | - | 250 | - | 8 | 6 | 95 |
| | 80<-D≤200 | 80<S≤200 | 340 | - | 220 | - | 8 | - | 95 |
| | 200<D≤250 | 200<S≤250 | 330 | - | 210 | - | 7 | - | 95 |

D^a = Diameter for round rod / S^b = Width across flat for square and hexagonal rod, Thickness for rectangular rod / c Properties may be obtained by press quenching

Classification: 1=very good / 6=insufficient

| Physical properties | | General properties | | | |
|---|---------|--|---|--|-----------------------|
| Density g/cm ³ | 2.85 | Corrosion resistance to atmospheric influences | 5 | Surface treatment Protection anodizing | 5 |
| Modulus of elasticity MPa | 72500 | | | | |
| Thermal conductivity W/(m K) | 130-160 | Brazeability: Brazeability with flux | - | Painting/Coating | 4 |
| Coefficient of thermal expansion (20-100 °) 10 ⁻⁶ /K | 23.0 | | | | |
| Electrical conductivity MS/m | 18-22 | - | - | | |
| | | | | | |
| | | Soft soldering with flux | | | |
| Weldability | | Machining properties | | | |
| Gas | - | Precipitation hardened | | | 1 70-300 Scales |
| TIG | - | Cutting speed v=m/min | | | |
| MIG | - | Chip shape | | | |
| Resistance fusion welding | - | | | | |

Errors and changes excepted/This document is not subject to revision.