

# Material data sheet

## ALBROMET-A300

| <b>ALBROMET-A300</b>     | <b>Aluminum bronze</b>   |         |          |        |    |        |           |           |         |          |       |
|--------------------------|--|---------|----------|--------|----|--------|-----------|-----------|---------|----------|-------|
| Material properties      | Very high compressive strength and mechanical wear resistance, excellent sliding properties, low nickel content  |         |          |        |    |        |           |           |         |          |       |
| Application examples     | Guides for hardened steel, dies, rollers and tools for sheet metal forming, particularly stainless steel grades; bending tools, flaring tools, drawing tools, workpiece holders for centreless grinding                        |         |          |        |    |        |           |           |         |          |       |
| Processing               | Machining only with carbide tools; polishes well; weldable only to a limited extent  |         |          |        |    |        |           |           |         |          |       |
| Typical analysis         | <table border="1"><thead><tr><th>Cu</th><th>Al</th><th>Fe</th><th>Pb</th><th>Others</th></tr></thead><tbody><tr><td>Remaining</td><td>12 - 13 %</td><td>3 - 5 %</td><td>&lt; 0.02 %</td><td>&lt; 2 %</td></tr></tbody></table> | Cu      | Al       | Fe     | Pb | Others | Remaining | 12 - 13 % | 3 - 5 % | < 0.02 % | < 2 % |
| Cu                       | Al   | Fe      | Pb       | Others |    |        |           |           |         |          |       |
| Remaining                | 12 - 13 %  | 3 - 5 % | < 0.02 % | < 2 %  |    |        |           |           |         |          |       |
| Standards/Specifications | non-standardised<br>(DIN EN 12163, DIN EN 12164, DIN EN 12167, DIN EN 12420)<br>(DIN EN 1982)<br>~ C62500, C95900 (ASTM B505)  |         |          |        |    |        |           |           |         |          |       |
| Delivery formats         | Plates, round bars, flat bars, square bars, cut to length pieces; finished parts according to drawings   |         |          |        |    |        |           |           |         |          |       |

| Mechanical and physical properties           | forged / extruded / pressed                              | cast          |
|--|--|---------------|
| Hardness Brinell (HBW 10/3000)               | 270 - 320  | 260 - 320     |
| Hardness Rockwell (HRC, converted)           | 28 - 33  | 26 - 32       |
| Tensile strength R <sub>m</sub>              | 600 - 1000 MPa   | 600 - 900 MPa |
| Yield strength R <sub>p0,2</sub>             | > 400 MPa  | > 400 MPa     |
| Elongation at break A <sub>5</sub>           | 1 %  | 1 %           |
| Elasticity modulus E                         | 110 GPa  | 105 GPa       |
| Compressive strength                         | 1,200 MPa  | 1,200 MPa     |
| Density                                      | 7.25 g/cm <sup>3</sup>                                   |               |
| Mean linear coefficient of thermal expansion | 17.5 10 <sup>-6</sup> /K                                 |               |
| Thermal conductivity at 20° C                | 42 W/m*K   |               |
| Electrical conductivity at 20 °C             | 4.6 m/Ohm*mm <sup>2</sup> ; 8 % I.A.C.S                  |               |
| Thermal stability                            | < 300 °C until there is a significant change in strength |               |
| Melting range                                | Solidus ~ 1045 °C and Liquidus ~ 1060 °C                 |               |
| Magnetic permeability                        | 1.10 H = 100 Oe  |               |

These data are based on information provided by our supplier, all changes reserved. The mechanical strength values are typical standard values and depend on the dimension and the production method (Status: 03/2026).