

Product Information

FELDER Bearing Metal LgSn89

Lead-free babbitt metal Sn89Sb7.5Cu3.5

Item no.: 13890055

Item no.: 1485315801

All information about our products is the result of our long standing experience which we would like to pass on to our customers as application support. However, as we do not have any influence on the application of the works carried out with our products, please see the warranty claims in our conditions of sale because our liability is limited.

This product information does not constitute warranted properties.

Description

FELDER Bearing Metal LgSn89 is free of lead, cadmium, arsenic and nickel. It is used for the highest requirements of the static load as well as of high sliding speeds.

FELDER Bearing Metal LgSn89 is very good solderable on Cu-Zn-Sn alloys, steel castings and cast iron.

Composition of Alloy and Tolerances

| Composition of Alloy | Tolerances in % | | |
|----------------------|-----------------|---------------|-------------|
| | Tin (Sn) | Antimony (Sb) | Copper (Cu) |
| Sn89Sb7,5Cu3,5 | remaining | 7-8 | 3-4 |

Properties

| | | | |
|---|--|----------|-----------|
| Melting range in °C | 233 - 360 | | |
| Casting temperature in °C | >440 | | |
| Coefficient of linear thermal expansion at 20-100°C in K ⁻¹ | 23.4·10 ⁻⁶ | | |
| Bond strength (steel C10, bearing metal thickness ≥ 6mm)(DIN ISO 4386-2) in N/mm ² | 75 | | |
| Bending fatigue strength in N/mm ² | approx. 29 | | |
| Medium number of impact to fracture | 3741 | | |
| Medium of impact energy to fracture in J | 1028 | | |
| Density in kg/dm ³ | 7,4 | | |
| | | at 20° C | at 100° C |
| Compressive stress | 0,2 % Offset yield strength in N/mm ² | 47 | 27 |
| | 2 % Offset yield strength in N/mm ² | 76 | 45 |
| | Compressive strength in N/mm ² | 157 | 45 |
| | Strain at failure in % | 47 | 50 |
| Tensile stress | 0,2 % Expansion limit in N/mm ² | 46 | |
| | Tensile strength in N/mm ² | 77 | |
| | Modulus of elasticity in kN/mm ² | 56,5 | |
| | Elongation in % | 11.2 | |

Application Advice

FELDER Bearing Metal LgSn89 can be used with all known applications. These are among others the centrifugal- and static casting procedure or plasma soldering. A pre-tinning of the bearing support elements is essentially for the anchoring of the bearing metal. This is carried out by dipping into a solder bath or, with larger bearings, by wipe-tinning. For this purpose we recommend the lead-free **FELDER Soft solder and tinning pastes** as well as our **Soldering oil „ST“**.

Delivery Form

8 - 10 kg blocks

Massiv wire on coil SH390K (12.5 kg)