



DuraKapp™#3 Babbitt

Description

DuraKapp™#3 Babbitt is a general purpose, high speed, Lead-free, Tin-based Babbitt. Kapp Alloy's unique Precision Microcasting™ process, combined with high purity virgin raw materials, results in the world's strongest, most ductile Tin-based Babbitt. **DuraKapp™#3** meets or exceeds the specifications for ASTM #3 Babbitt —also known as Super Tough, Grade 3, or No. 3 Babbitt. We stand behind our products with a 100% satisfaction guarantee or your money back.

Applications

- Sleeve bearings in: compressors, electric motors, pumps, and engines
- Thin bearings in light to medium pressure applications
- Motors, converters, centrifugal pumps, and dynamos
- Regular duty compressors, gas, diesel, and marine engines
- Paired with [KappaTinning™ Compound](#) and [Kapp CopperBond™ Flux](#)

Properties

Specification	
ASTM B23:	Grade 3
QQ-T-90A:	No. 3
Composition	
Sn (Tin):	83.0-85.0%
Sb (Antimony):	7.5-8.5%
Cu (Copper):	7.5-8.5%
Pb (Lead):	0.35% (max.)
Technical Data	
Melting Temperature:	464-792°F (240-422°C)
Brinell Hardness @ 68°F (20°C):	27
Hardness:	Chill cast; Cast at 600°F (315°C) into mold at 302°F (150°C) - 27 HB at 68°F (20°C); 14.5 HB at 212°F (100°C)
Tensile Strength (Chill Cast):	10,000 psi (69 MPa)
Tensile Strength (typical):	Cast at 600°F (315°C) into mold at 302°F (150°C): 10,000psi (69 MPa)
Compression Yield Strength:	6,600psi (45.5 MPa)
Ultimate Compression Strength:	17,610 psi (121.4 MPa)
Elongation at Break:	1%
Yield Point, psi (MPa) Compression at Temperature:	68°F (20°C) = 6,600 psi / 45.5 MPa; 212°F (100°C) = 3,150 psi / 21.7 MPa
Johnson's Apparent Elastic Limit psi (MPa):	68°F (20°C) = 5,350 psi / 36.9 MPa; 212°F (100°C) = 1,300 psi / 9.0MPa
Elastic Modulus:	Tension; Cast at 750°F (400°C) into mold at 212°F (100°C) = 52 GPa (7.6 x 10 ⁶ psi)
Mass Characteristics:	Density: 7.46 g/cm ³ (0.270 lbs./in. ³)
Fabrication Characteristics:	Casting temperature; Chill castings: 600°F (315°C)

*Available in standard forms: 35 lb. (15.9 kg) ingots, 6 lb. (2.7 kg), notch bars, and nominal 1 lb. (0.5 kg) bars. Custom alloys and forms are our specialty. Call Kapp Alloy to discuss your specific project.