



SCIENTIFIC ALLOYS

SPHERES IN MOTION

Technical Data Sheet

58Bi 42Sn

Physical Properties:

Alloy: 58Bi 42Sn

Melting Point/Range: 138°C Eutectic

Tensile Strength: 7.9 Ksi

Specific Gravity: 8.72 g/cm³

Coefficient of Thermal Expansion: 14 x 10⁻⁶/°C

Thermal Conductivity: 0.19 Wm⁻¹ K⁻¹

Hardness: 22 HB

Electrical Conductivity: 4.5 X 10⁶/Ω m

Application:

This alloy is lead-free and strong but can be brittle. It has moderate creep resistance and is effective on Pb free surfaces. These spheres can be utilized in applications within appropriate temperature range for various electronic packages and assemblies and it is compatible with most fluxes. Small additions of silver can also be added to improve the spheres thermal and mechanical properties.

Disclaimer:

This is for informational purposes only and assuming proper handling and operation is deemed accurate based on current data.