



**ARTICLE COMPRISING SOLDER WITH IMPROVED MECHANICAL
PROPERTIES, AND METHOD OF MAKING THE SOLDER**

Abstract

New solder compositions which can have improved mechanical
5 properties are disclosed. In a preferred embodiment, the solder comprises a matrix
material and magnetically dispersed particles. A desirable dispersion of the magnetic
particles in the matrix material, is accomplished by applying a magnetic field to the
molten matrix material containing magnetic particles and solidifying it in the
presence of the magnetic field. The particle-dispersed microstructures improve the
10 mechanical properties of the solder composition. The improved solder composition
can be made into a powder to be used in solder paste, cream or reshaped while
substantially retaining the improved mechanical properties.