

EPOXY RESIN COMPOSITION AND SEMICONDUCTOR DEVICE
ENCAPSULATED THEREWITH

ABSTRACT

In an epoxy resin composition comprising an epoxy resin, a curing agent, and 80-90 wt% of a particulate inorganic filler, fine particles having a particle size of less than 3 μm account for 10-40 wt% of the inorganic filler, and the inorganic filler has a specific surface area of less than 2.5 m^2/g as measured by a nitrogen adsorption BET method. The inorganic filler satisfies that when a blend of a bisphenol F type liquid epoxy resin having a viscosity of 30-45 poises at 25°C as measured by Gardner-Holdt method with 75 wt% of the inorganic filler is measured for viscosity at 25°C by means of an E type viscometer, the viscosity at a shear rate of 0.6 s^{-1} is less than 50,000 poises and the ratio of the viscosity at a shear rate of 0.6 s^{-1} to the viscosity at a share rate of 10 s^{-1} is less than 2.5/1. The epoxy resin composition has a low melt viscosity enough to mold on semiconductor devices without die pad and wire deformation.