

**ABSTRACT****FLUXING ADHESIVE**

An improved underfill adhesive encapsulant with fluxing activities containing an epoxy resin or a mixture of epoxy resin. An anhydride is used as the curing agent to harden the epoxy resin. A hydroxyl-containing fluxing precursor compound is added to the encapsulant composition to react with the anhydride curing agent to produce an active fluxing agent under typical reflow conditions. The use of a fluxing precursor gives improved reliability compared to conventional fluxing agents used in existing no-flow underfill encapsulants. A suitable catalyst such as imidazole, imidazole derivative or metal acetylacetonate is provided in the present encapsulant at concentrations that give good curing kinetics. A thermoplastic is optionally included to allow the cured encapsulant to be reworked.

No Figure