

ABSTRACT

A CURABLE EPOXY RESIN COMPOSITION AND LAMINATES MADE THEREFROM

A curable halogen-containing epoxy resin composition comprising: (a) at least one epoxy resin; (b) at least one hardener; wherein the hardener is a compound containing a phenolic hydroxyl functionality or a compound capable of generating a phenolic hydroxyl functionality upon heating; (c) a catalytic amount of a nitrogen-containing catalyst; (d) a non-nitrogen containing catalyst adjuvant compound capable of reducing the concentration of the nitrogen-containing catalyst; wherein at least one of the above components (a)-(d) is halogenated or wherein the resin composition includes (e) a halogenated flame retardant compound. The stroke cure gel time of the resin composition is maintained from 90 seconds to 600 seconds when measured at 1700C; and the resultant cured product formed by curing the curable epoxy resin composition contains well-balanced properties. The composition may be used to obtain a prepreg or a metal-coated foil, or a laminate by laminating the above prepreg and/or the above metal-coated foil. The laminate shows a combination of superior glass transition temperature, decomposition temperature, time to delamination at 288°C, adhesion to copper foil, and excellent flame retardancy.

Figure 1



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