

COMPOSITION AND PROCESS FOR FORMING ELECTRICALLY INSULATING THIN FILMS

ABSTRACT

Herein, we provide a composition and process for forming insulating films that produce low dielectric constants. The composition comprises (A) an electrically insulating curable inorganic or organic resin, (B) a solvent, and (C) at least one solvent-soluble substance (excluding the solvent used for component (B)) that upon heating or by interaction with the resin (A) can generate gas or undergo volatilization in the temperature range from 0°C to 800°C. Our insulating films are prepared by coating the surface of a substrate with the above composition; evaporating the solvent; and subsequently heating the substrate in order to generate gas from component (C) during the course of or after the cure of the said resin (A).