

METHOD FOR MAKING NANOPOROUS SILICONE RESINS FROM
ALKYLHYDRIDOSILOXANE RESIN

ABSTRACT

A method is disclosed for preparing a nanoporous silicone resin which can be used to form low dielectric constant films useful for electrical insulating coatings on electronic devices comprising heating an alkylhydridosiloxane resin where at least 5 percent of silicon atoms are substituted with at least one group comprising 8 to 28 carbon atoms and at least 45 percent of silicon atoms are substituted with at least one hydrogen atom at a temperature sufficient to effect curing and thermolysis of alkyl groups comprising 8 to 28 carbon atoms from the silicon atoms thereby forming a nanoporous silicone resin. The alkylhydridosiloxane resin is formed by contacting a hydridosilicon containing resin with a 1-alkene comprising 8 to 28 carbon atoms in the presence of a platinum group metal-containing hydrosilation catalyst.