

INORGANIC POLYSILAZANE RESIN

ABSTRACT

An inorganic polysilazane resin of the present invention has a Si/N ratio (i.e. a ratio of contained silicon atoms to contained nitrogen atoms) of 1.30 or more. The inorganic polysilazane resin having such a high Si content can be produced by, for example, a method in which an inorganic polysilazane compound containing both Si-NH and Si-Cl is heated to react NH with Cl, a method in which a silazane oligomer (polymer) that leaves no Si-Cl bond is synthesized and a dihalosilane is added to the synthesized silazane oligomer (polymer) to perform a thermal reaction, and the like. A siliceous film can be formed by, for example, applying a coating composition containing the inorganic polysilazane resin onto a base plate and then dried and the dried product is then oxidized by bringing the dried product into contact with water vapor or hydrogen peroxide vapor and water vapor under heated conditions.

No Figure.