Thermosetting Resin Composition

ABSTRACT

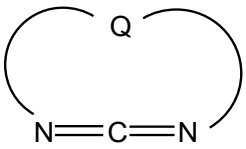
A thermosetting resin composition which produces no free isocyanate even when a carbodiimide compound is used and provides a cured resin having high heat resistance.

The thermosetting resin composition makes it possible to reduce the curing temperature, cures in a short time and provides a cured rein having a high glass transition temperature.

The thermosetting resin composition comprises:

(A) an epoxy resin (component A); and

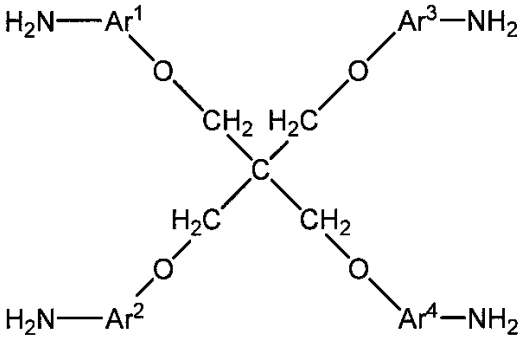
(B) a cyclic carbodiimide compound (component B) including a cyclic structure having one carbodiimide group and represented by the following formula (B-i) in which first nitrogen and second nitrogen are bonded together by a bond group and having 8 to 50 atoms forming the cyclic structure:



(B-i)

(wherein Q is bivalent to tetravalent bond group which is an aliphatic group, alicyclic group, aromatic group, or a combination of these groups and may contain a hetero atom or substituent); and/or

(b) a polyvalent amine-based curing agent (component b) represented by the following formula (b-i):



(b-i)

(wherein Ar^1 to Ar^4 are each independently a phenylene group or naphthalene-diyl group which may be substituted by a substituent).

[No Suitable Figures]