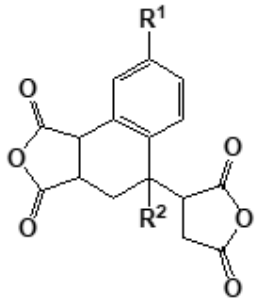
CLAIMS

1. A resin composition comprising (A) a polymer compound and (B) a ~~cationic~~ cationically polymerizable compound, wherein

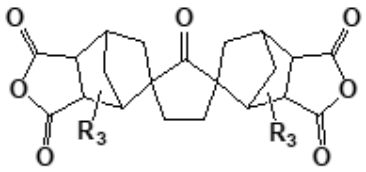
(A) the polymer compound is at least one compound selected from the group consisting of polyamide, polyimide, polyamideimide, and polybenzoxazole,

(A) the polymer compound has a structure derived from a compound represented by at least one of the following general formulae (3) and (4):

[Chemical Formula 1]



(3)



(4)

wherein R^1, R^2, and R^3 each independently represent a hydrogen atom or a methyl group, and

the resin composition further comprises (C) a cationic

polymerization initiator.

2. The resin composition according to claim 1, wherein a molecular chain terminal of (A) the polymer compound has a structure derived from a carboxylic acid residue.

3. The resin composition according to claim 1 or 2, wherein (A) the polymer compound is 30 to 70% by mass, and (B) the ~~cationic~~ cationically polymerizable compound is 30 to 70% by mass, assuming a total of all the resin ~~compositions~~ components is 100% by mass.

4. The resin composition according to any one of claims 1 to 3, wherein (A) the polymer compound is a compound obtained by polymerization where a total of amine residues is 60 to 98% by mole, assuming that a total of the carboxylic acid residues is 100% by mole.

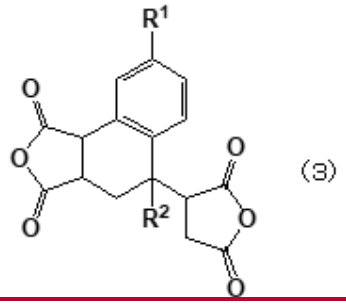
5. The resin composition according to any one of claims 1 to 4, wherein (A) the polymer compound is at least one compound selected from the group consisting of polyamide, polyimide, and polyamideimide and further has a structure derived from an alicyclic tetracarboxylic dianhydride.

6. The resin composition according to any one of claims

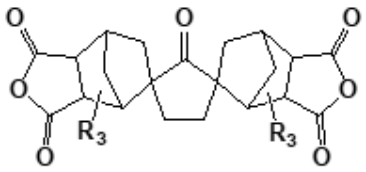
1 to 5, wherein the structure in which the molecular chain terminal of (A) the polymer compound is derived from the carboxylic acid residue is a structure derived from tetracarboxylic dianhydride.

~~7. The resin composition according to any one of claims 1 to 6, wherein (A) the polymer compound has a structure derived from a compound represented by at least one of the following general formulae (3) and (4):~~

~~[Chemical Formula 1]~~



(3)



(4)

~~wherein R^1, R^2, and R^3 each independently represent a hydrogen atom or a methyl group.~~

~~8~~7. The resin composition according to any one of claims 1 to ~~7~~6, wherein (A) the polymer compound is a compound

having a phenolic hydroxyl group in a molecular chain.

~~9~~8. The resin composition according to any one of claims 1 to ~~8~~7, wherein (B) the ~~cationic~~ cationically polymerizable compound is a polyfunctional epoxy compound that is liquid at normal temperature and has an epoxy equivalent of 80 to 160 g/eq.

~~10~~9. The resin composition according to any one of claims 1 to ~~9~~8, wherein (C) the cationic polymerization initiator is a sulfonium salt.

~~11~~10. A resin composition film comprising a resin composition coating film formed from the resin composition according to any one of claims 1 to ~~10~~9.

~~12~~11. The resin composition film of claim 10, wherein, when the resin composition coating film is heated at 200°C, a weight reduction rate is 0.01 to 1.0%, wherein the heating comprises raising the temperature from 40°C to 200°C at a temperature rising rate of 10°C/min, and wherein the resin composition coating film is held at 200°C for 60 minutes, and wherein the weight reduction is measured based on the weight after holding the resin composition coating film at 40°C for 10 minutes.

~~13~~12. The resin composition film according to claim ~~11~~ 10 or ~~12~~11, wherein the resin composition coating film has a melt viscosity of 0.5 × 10^6 to 1.0 × 10^7 MPa·s at 40°C, wherein the melt viscosity is measured as follows:

first, two pieces of the resin composition coating films of the resin composition films are opposed to each other and thermocompression-bonded at 60°C to obtain a laminated resin composition coating film;

the above operation is repeated to laminate until the laminated resin composition coating film has a thickness of 600 to 700 μm;

next, the complex melt viscosity can be obtained by reading a value of the complex melt viscosity at 40°C when the laminated resin composition coating film is subjected to temperature rising measurement at a temperature rising rate of 2 °C/min from 30°C to 80°C, a frequency of 0.2 Hz and a strain amount of 1.0% using a rheometer.

~~14~~13. The resin composition film according to any one of claims ~~11~~ 10 to ~~13~~12, wherein, after the resin composition coating film is thermally cured, an amount of creep deformation at 180°C is 0.5 to 2.5%, wherein the amount of creep deformation is measured as follows:

first, the resin composition film, comprising the resin

composition coating film having a thickness of 30 μm and a support film, is thermocompression-bonded to a glossy surface of a copper foil;

then, the support film is peeled off, and the resin composition coating film is exposed using an exposure machine as necessary;

thereafter, heating and curing are performed at 180°C for 1 hour using an inert oven;

a portion of the copper film is etched using a ferric chloride solution to obtain a cured film of the resin composition coating film;

next, the cured film is cut into a size of 8 cm × 1 cm to obtain a cured film sample;

thereafter, using a universal testing machine, the cured film sample is set in a chamber at 180°C and held for 6 minutes until the temperature is stabilized;

a tensile load is then applied to the cured film sample with a chuck interval of 5 cm and a constant load of 5 N, and the amount of deformation after 300 seconds is read, thereby the amount of creep deformation can be measured.

~~15~~14. A cured film obtained by curing the resin composition coating film of the resin composition according to any one of claims 1 to ~~10~~ 9 or the resin composition film according to any one of claims ~~11~~ 10 to ~~14~~13.

~~16~~15. A hollow structure, wherein the cured film according to claim ~~15~~ 14 is used as a roof portion of a structure having a hollow portion (hereinafter, referred to as a hollow structure).

~~17~~16. The hollow structure according to claim ~~16~~15, wherein a thickness of the roof portion is 10 to 30 μm.

~~18~~17. An electronic component, wherein the hollow structure according to claim ~~16~~ 15 or ~~17~~ 16 has a structure in which an outer peripheral portion is blocked with a molding resin.