

FORM 2

THE PATENTS ACT, 1970
(39 of 1970)
AND
THE PATENTS RULES, 2003

**COMPLETE
SPECIFICATION**

(See Section 10; rule 13)

TITLE OF THE INVENTION

“ADHESIVE TAPE COMPOSITION AND ADHESIVE TAPE PREPARED FROM
SAME”

APPLICANT

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The following specification particularly describes
the invention and the manner in which
it is to be performed

What is Claimed is:

1. A bonding tape composition, based on the total weight of the bonding tape composition, comprising:

25-75 percent by weight of an acrylate monomer;

5 20-70 percent by weight of an epoxy resin;

0.001-3 percent by weight of a radical photo-initiator;

0-10 percent by weight of a fumed silica; and

0.02-5 percent by weight of a cationic thermal initiator.

10 2. The bonding tape composition according to claim 1, wherein the acrylate monomer has a solubility parameter in a range of 9.3 to 13.5.

3. The bonding tape composition according to claim 1 or 2, wherein the acrylate monomer is one or more selected from the group consisting of tert-butyl acrylate, phenoxyethyl acrylate, isobornyl acrylate,
15 2-hydroxyl-3-phenoxypropyl acrylate, N-vinyl-2- pyrrolidone, and N-vinylcaprolactam.

4. The bonding tape composition according to claim 1 or 2, wherein the acrylate has an epoxy equivalent in a range of 150 to 600.

20 5. The bonding tape composition according to claim 1 or 2, wherein the radical photo-initiator is one or more selected from the group consisting of 2, 2-dimethoxy-2-phenyl acetophenone, 1-hydroxycyclohexylphenylmethanone, 2-hydroxyl-2-methyl-1-phenylpropane-1-one, 2-isopropylthioxanthone, 4-isopropylthioxanthone, 2, 4, 6-trimethylbenzoyldiphenylphosphine oxide, and bis(2, 4, 6-trimethylbenzoyl)-phenylphosphine oxide.

25 6. The bonding tape composition according to claim 1 or 2, wherein the bonding tape composition comprises 3-5 percent by weight of the fumed silica.

30 7. The bonding tape composition according to claim 1 or 2, wherein the cationic thermal initiator is one or more selected from the group consisting of hexafluoroantimonates and trifluoromethanesulfonic acid.

8. The bonding tape composition according to claim 1 or 2, wherein the bonding tape composition has a viscosity in a range of 500 to 23000 cPs.

5 9. A bonding tape prepared by coating a bonding tape composition according to any one of claims 1-8 in liquid form onto a releasing material and curing the bonding tape composition by irradiating ultraviolet light.

10 10. The bonding tape according to claim 9, wherein the releasing material is releasing paper or releasing film.

11. The bonding tape according to claim 9, wherein the bonding tape has a thickness of 8-250 μm .

dated this 27 day of June 2014.

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