CLAIMS

{Claim 1}

A dicing die attach film, comprising:

a dicing film, and

a die attach film stacked on the dicing film,

wherein the die attach film comprises an organic solvent having a boiling point of 100°C or more and less than 150°C and a vapor pressure of 50 mmHg or less, and

wherein an amount of the organic solvent in the die attach film satisfies the following (a):

(a) when 1.0 g of the die attach film is immersed in 10.0 mL of acetone at 4°C for 24 hours, an amount of the organic solvent extracted into the acetone is 400 μg or less.

{Claim 2}

The dicing die attach film according to claim 1, wherein the organic solvent has a boiling point of 103 to 135°C and a vapor pressure of 3.0 to 35.0 mmHg.

{Claim 3}

The dicing die attach film according to claim 2, wherein the amount of the organic solvent extracted into the acetone in the above (a) is 300 μg or less.

{Claim 4}

The dicing die attach film according to any one of claims 1 to 3,

wherein the die attach film comprises:

an epoxy resin (A),

an epoxy resin curing agent (B),

a polymer component (C), and

an inorganic filler (D), and

wherein when the die attach film is heated at a temperature rising rate of 5°C/min from 25°C, a melt viscosity of the die attach film at 120°C reaches a range of 500 to 10,000 Pa•s.

{Claim 5}

The dicing die attach film according to any one of claims 1 to 4, wherein the dicing film is energy ray-curable.

{Claim 6}

A method of producing the dicing die attach film according to any one of claims 1 to 5, comprising the steps of:

forming a film using varnish obtained by dissolving or dispersing components of the die attach film in an organic solvent having a boiling point of 100°C or more and less than 150°C and a vapor pressure of 50 mmHg or less; and

subjecting the obtained film to drying treatment to form the die attach film.

{Claim 7}

The method of producing a dicing die attach film according to claim 6, wherein the organic solvent used for the varnish has a boiling point of 103 to 135°C and a vapor pressure of 5.0 to 35.0 mmHg.

{Claim 8}

A semiconductor package, comprising:

a semiconductor chip and a circuit board which are bonded to each other

with a thermally cured product of a bonding agent, and/or

semiconductor chips which are bonded to each other with a thermally cured product of a bonding agent,

wherein the bonding agent is derived from the die attach film of the dicing die attach film according to any one of claims 1 to 5.

{Claim 9}

A method of producing a semiconductor package, comprising the steps of:

a first step of thermocompression bonding the dicing die attach film according to any one of claims 1 to 5 to a back surface of a semiconductor wafer where at least one semiconductor circuit is formed on a surface so that the die attach film is in contact with the back surface of the semiconductor wafer;

a second step of integrally dicing the semiconductor wafer and the die attach film to obtain a semiconductor chip with a bonding agent layer, the semiconductor chip with a bonding agent layer including a piece of the die attach film and a semiconductor chip on the dicing film

a third step of removing the semiconductor chip with a bonding agent layer from the dicing film and thermocompression bonding the semiconductor chip with a bonding agent layer and a circuit board via the bonding agent layer; and

a fourth step of thermally curing the bonding agent layer.