

CLAIMS

[Claim 1]

A resin film-forming composite sheet which is so configured that a resin film-forming film capable of forming a resin film is directly laminated on a supporting sheet and which satisfies the following requirements (I) and (II), and the resin film-forming contains a polymer component (A) and a thermosetting component (B).

Requirement (I): a release force ($\alpha 1$) required for releasing the resin film-forming film from a silicon wafer, as measured in an environment at 23°C and under releasing conditions (x) of a pulling rate of 300 mm/min and a pulling angle of 180° after a surface (α) of the resin film-forming film on the side thereof to be stuck to the silicon wafer has been stuck to a silicon wafer, is 0.05 to 10.0 N/25 mm; and

Requirement (II): a release force ($\beta 1$) required for releasing the supporting sheet from a surface (β) of the resin film-forming film on the side thereof directly laminated on the supporting sheet, as measured under the above-mentioned releasing conditions(x), is a value equal to or greater than the release force ($\alpha 1$).

[Claim 2]

The resin film-forming composite sheet according to claim 1, further satisfying the following requirement (III):

Requirement (III): a release force ($\beta 2$) required for releasing the supporting sheet from a surface (β') of the resin film on the side on which the supporting sheet is directly laminated, as measured under the above-mentioned releasing conditions (x) after the resin film has been formed from the resin film-forming film, is 0.02 to 5.0 N/25 mm.

[Claim 3]

The resin film-forming composite sheet according to claim 1 or 2, wherein the release force ($\beta 1$) is 0.05 to 20.0 N/25 mm.

[Claim 4]

The resin film-forming composite sheet according to any one of claims 1 to 3, wherein the supporting sheet is a sheet formed of a substrate alone.

[Claim 5]

The resin film-forming composite sheet according to any one of claims 1 to 3, wherein the supporting sheet is a pressure sensitive adhesive sheet having a pressure sensitive adhesive layer on a substrate.

[Claim 6]

The resin film-forming composite sheet according to claim 5, wherein the

supporting sheet is a pressure sensitive adhesive sheet having a pressure sensitive adhesive layer on a substrate and is so configured that the pressure sensitive adhesive layer of the pressure sensitive adhesive sheet is laminated directly on the surface (β) of the resin film-forming film.

[Claim 7]

The resin film-forming composite sheet according to claim 5 or 6, wherein the pressure sensitive adhesive layer is a layer formed of a pressure sensitive adhesive composition containing an energy ray-curable resin.

[Claim 8]

The resin film-forming composite sheet according to any one of claims 1 to 7, wherein the difference between the release force ($\beta 1$) and the release force ($\alpha 1$) [$(\beta 1) - (\alpha 1)$] is 0.01 N/25 mm or more and 20 N/25 mm or less.

[Claim 9]

The resin film-forming composite sheet according to any one of claims 1 to 8, wherein the resin film-forming film is a forming material for a protective film or an adhesive film.

[Claim 10]

A method for producing a resin film-having chip, comprising the following steps (1) to (4):

step (1): a step of sticking the resin film-forming composite sheet of any one of claims 1 to 9, onto the back surface of a workpiece;

step (2): a step of dicing the workpiece;

step (3): a step of forming a resin film from the resin film-forming film;

and

step (4): a step of picking up the workpiece that has been diced via the step (2) to thereby obtain a chip.