CLAIMS

1. A method for affixing a protective film, comprising:

an arrangement step of arranging a protective film so as to cover a main surface of a semiconductor wafer; and

an affixing step of pressing the protective film against the main surface to affix the protective film to the main surface, characterized in,

that the main surface has a first region in which bumps are arranged and a second region which includes at least a part of a peripheral edge of the main surface and in which no bumps are arranged,

that the affixing step includes a compression step of compressing the protective film in a thickness direction thereof, and

that the compression step is performed using a pressing member for pressing the protective film against the main surface and a support member installed along an outer peripheral edge of the second region, and

in the compression process, the support member restricts the flow of the thick portion of the protective film from flowing further outward from a peripheral edge of the main surface.

2. The method for affixing a protective film according to claim 1,

wherein the arrangement step is a step of arranging the protective film such that ~~a~~n peripheral edge part of the protective film protrudes outward from the peripheral edge of the second region, and

wherein the compression step is a step of compressing the peripheral edge part of the protective film by using the support member to support the peripheral edge part and sandwiching the peripheral edge part between the support member and the pressing member.

3. The method for affixing a protective film according to claim 2, wherein, in the support member, a support surface that supports the peripheral edge part of the protective film is parallel to the main surface or inclined so as to face the main surface side.

4. The method for affixing a protective film according to claim 3, having a relationship of $C_1>C_2$, where a clearance between the main surface of the semiconductor wafer and a pressing surface of the pressing member is C_1, and a clearance between the support surface of the support member and the pressing surface of the pressing member is C_2.

5. The method for affixing a protective film according to claim 1,

wherein the arrangement step is a step of arranging the protective film such that ~~a~~n peripheral edge part of the protective film is positioned on an inner peripheral side of the support member, and

wherein the compression step is a step of compressing the peripheral edge part of the protective film with the pressing member, an inner peripheral surface of the support member, and the main surface so that the inner peripheral surface of the support member blocks bulging of the protective film in an outer peripheral direction of the second region when the protective film is sandwiched between the pressing member and the main surface.

6. The method for affixing a protective film according to any one of claims 1 to 5, wherein the protective film has a layer capable of exhibiting fluidity or plasticity.

7. The method for affixing a protective film according to claim 6, wherein the compression step is performed in a state where the protective film is heated and the fluidity or the plasticity is exhibited.

8. The method for affixing a protective film according to any one of claims 1 to 7, having a relationship of $0.5 \leq H2/H1$, where an average height of the bumps is H1 and an average thickness of the protective film is H2.

9. A method for manufacturing a semiconductor component, ~~characterized by~~ comprising the method for affixing a protective film according to any one of claims 1 to 8.

10. A protective film when used ~~characterized by using~~ in the method for affixing a protective film according to any one of claims 1 to 8.

~~11. A method for affixing a protective film, comprising:~~

~~a processing step of processing a protective film to prepare a processed film;~~

~~an arrangement step of arranging the processed film so as to cover a main surface of a semiconductor wafer; and~~

~~an affixing step of pressing the processed film against the main surface to affix the processed film to the main surface, characterized in,~~

~~that the main surface has a first region in which bumps are arranged and a second region which includes at least a part of a peripheral edge of the main surface and in which no bumps are arranged,~~

~~that the processing step is a step of forming sites different in thicknesses in the protective film to prepare the processed film, and~~

~~that the arrangement step is a step of arranging a region having a relatively large thickness among the sites different in thicknesses of the processed film such that the region corresponds to the second region.~~

~~12. The method for affixing a protective film according to claim 11, wherein the protective film has a layer capable of exhibiting fluidity or plasticity.~~

~~13. The method for affixing a protective film according to claim 12, wherein the processing step is performed in a state where the protective film is heated and the fluidity or the plasticity is exhibited.~~

~~14. The method for affixing a protective film according to any one of claims 11 to 13, having a relationship of $0.5 \leq H2/H1$, where an average height of the bumps is H1 and an average thickness of the protective film is H2.~~

~~15. A method for manufacturing a semiconductor component, characterized by comprising the method for affixing a protective film according to any one of claims 11 to 14.~~

~~16. A protective film characterized by using in the method for affixing a protective film according to any one of claims 11 to 14.~~