CLAIMS

1. A part for manufacturing a semiconductor, comprising:

a composite including SiC and C in which an atomic ratio between Si and C is 1:1.1 to 1:1.3.

2. The part of claim 1, being a part of a plasma processing device including at least one selected from a group consisting of a focus ring, an electrode portion, and a conductor.

3. The part of claim 1, wherein C is present in SiCs in the composite.

4. The part of claim 1, wherein C is present as pyrolytic carbon in the composite.

5. A semiconductor manufacturing part including a composite coating layer, the part comprising:

a part for manufacturing a semiconductor; and

a composite coating layer formed on at least one surface of the part and including SiC and C,

wherein an atomic ratio between Si and C in the composite coating layer is 1:1.1 to 1:1.3.

6. The part of claim 5, wherein the part for manufacturing a semiconductor includes graphite, SiC, or both of these.

7. The part of claim 5, being a part of a plasma processing device including at least one selected from a group consisting of a focus ring, an electrode portion, and a conductor.

8. The part of claim 5, wherein an average thickness of the composite coating layer is 1 millimeter (mm) to 3 mm.

9. A method of manufacturing a part for manufacturing a semiconductor, the method comprising:

forming a composite including SiC and C through chemical vapor deposition on a base

material including graphite, SiC, or both of these using a Si precursor and C precursor source,

wherein an atomic ratio between Si and C in the composite is 1:1.1 to 1:1.3.

10. The method of claim 9, wherein the forming of the composite including SiC and C is performed at a temperature of 1000°C to 1900°C.

11. The method of claim 9, comprising:

mixing a Si precursor and a C precursor before the forming of the composite including SiC and C.

12. A method of manufacturing a part for manufacturing a semiconductor including a composite coating layer, the method comprising:

preparing a part for manufacturing a semiconductor; and

forming a composite coating layer including SiC and C through chemical vapor deposition on at least one surface of the part using a Si precursor and a C precursor,

wherein an atomic ratio between Si and C in the composite is 1:1.1 to 1:1.3.

13. The method of claim 12, wherein the part for manufacturing a semiconductor includes graphite, SiC, or both of these.

14. The method of claim 12, wherein the forming of the composite coating layer including SiC and C is performed at a temperature of 1000°C to 1900°C.

15. The method of claim 12, comprising:

mixing the Si precursor and the C precursor before the forming of the composite coating layer including SiC and C.