# CLAIMS

1. A carrier for polishing processing that is made of a composite material including fibers oriented in at least a certain direction and a resin material, and has a holding hole for holding a disk-shaped substrate when a pair of main surfaces of the substrate are subjected to polishing processing with the substrate sandwiched between an upper surface plate and a lower surface plate, wherein

the holding hole has, on a circumference of an inner circumferential wall surface of the holding hole, a first wall portion that is configured such that the substrate is in contact with the fibers in a state in which the substrate is held in the holding hole, and a second wall portion that is configured such that the substrate does not come into contact with the fibers, and

the second wall portion is formed in a portion of the inner circumferential wall surface facing toward an orientation direction of the fibers that includes the certain direction.

2. The carrier for polishing processing according to claim 1, wherein

the second wall portion is located outside of the first wall portion in a radial direction of the holding hole.

3. The carrier for polishing processing according to claim 2, wherein

the first wall portion is a first curved surface having a shape protruding inwardly in the radial direction of the holding hole, a flat surface, or a second curved surface having a protruding shape that has a radius of curvature larger than a radius of curvature of an inscribed circle inscribing an outline of the inner circumferential wall surface of the holding hole and protrudes outwardly in the radial direction of the holding hole, and an outer circumferential side wall surface of the substrate abuts against the first curved surface, the flat surface, or the second curved surface.

4. The carrier for polishing processing according to claim 3, wherein

the circumference of the holding hole is provided with four or more of the first curved surface, the flat surface, or the second curved surface.

5. The carrier for polishing processing according to any one of claims 2 to 4, wherein

a diameter of the inscribed circle inscribing the outline of the inner circumferential wall surface of the holding hole is larger than a diameter of a disk shape of the substrate.

6. The carrier for polishing processing according to claim 5, wherein

the diameter of the inscribed circle is 1.002 to 1.031 times the diameter of the disk shape of the substrate.

7. A method for manufacturing a magnetic-disk substrate, comprising:

a step of producing a disk-shaped substrate; and

a step of performing polishing processing on main surfaces of the substrate by sandwiching the substrate between an upper surface plate and a lower surface plate in a state in which the substrate is held in the holding hole provided in the carrier for polishing processing according to any one of claims 2 to 6, and moving the glass main surfaces and the upper surface plate and the lower surface plate relative to each other.

8. The method for manufacturing a magnetic-disk substrate according to claim 7, wherein

an outer circumferential side wall surface of the substrate abuts on both sides of the second wall portion during the polishing processing, without abutting against the second wall portion.

9. The method for manufacturing a magnetic-disk substrate according to claim 7 or 8, wherein

the carrier for polishing processing is produced by forming a holding hole in a plate material made of a composite material including fibers oriented in at least a certain direction and a resin material, and etching the plate material after the holding hole is formed.

10. The carrier for polishing processing according to claim 1, wherein

a fiber absence region that is provided outside in a radial direction of the holding hole with respect to the second wall portion and in which no fibers are present in the orientation direction is arranged in an annular region extending outwardly from the inner circumferential wall surface of the holding hole in the radial direction of the holding hole.

11. The carrier for polishing processing according to claim 10, wherein

the fiber absence region is formed by no tips of the fibers that are directed toward the second wall portion reaching the inner circumferential wall surface of the holding hole.

12. A method for manufacturing a carrier for polishing processing having a holding hole for holding a disk-shaped substrate when main surfaces of the substrate are subjected to polishing processing with the substrate sandwiched between an upper surface plate and a lower surface plate, the manufacturing method comprising:

a first step of forming the holding hole in a plate material made of a composite material including fibers oriented in at least a certain direction and a resin material; and

a second step of producing the carrier by at least etching the plate material in which the holding hole is formed, wherein

in the second step, the fibers are etched in a portion of the inner

circumferential wall surface facing toward an orientation direction of the fibers that includes the certain direction.

13. The method for manufacturing a carrier for polishing processing according to claim 12, wherein

in the second step, before etching, a masking material is provided on a portion of the plate material that constitutes a portion other than the portion of the inner circumferential wall surface facing toward the orientation direction, and the masking material is removed after etching.

14. The method for manufacturing a carrier for polishing processing according to claim 12 or 13, wherein

in the second step, etching is performed by applying an etching agent for etching the fibers to a portion of the plate material that constitutes the portion of the inner circumferential wall surface facing toward the orientation direction.

15. The method for manufacturing a carrier for polishing processing according to any one of claims 12 to 14, wherein

in the second step, before etching, the plate material and one or more other base plates in which holding holes are formed at positions corresponding to a position at which the holding hole is formed in the plate material are disposed stacked in a substrate thickness direction.

16. The method for manufacturing a carrier for polishing processing according to claim 15, wherein

the one or more other base plates are made of a composite material including fibers oriented in at least a certain direction and a resin material, and

when the plate material is called a first plate material and the one or

more other base plates are called second plate materials, in the second step, when the first plate material and the second plate materials are disposed stacked, directions in which the fibers are oriented are matched between the plate materials.

17. The method for manufacturing a carrier for polishing processing according to claim 15, wherein

the one or more other base plates are made of a composite material including fibers oriented in at least a certain direction and a resin material, and

when the plate material is called a first plate material and the one or more other base plates are called second plate materials, in the first step, if the first plate material and the second plate materials are disposed stacked, the holding holes are formed such that directions in which the fibers are oriented match between the plate materials.

18. A method for manufacturing a magnetic-disk substrate, comprising

polishing processing for polishing main surfaces of a substrate in a state in which the substrate is held in the carrier for polishing processing according to any one of claims 10 and 11.

19. A method for manufacturing a magnetic-disk substrate, comprising

manufacturing a carrier for polishing processing manufactured by the method for manufacturing a carrier for polishing processing according to any one of claims 12 to 17, and

polishing processing for polishing main surfaces of a substrate in a state in which the substrate is held in the carrier for polishing processing.