CLAIMS

1. A method for manufacturing a glass substrate for an information recording medium, comprising:

a first grinding step of grinding a main surface of a glass substrate obtained using a direct pressing process by spraying a plurality of particles onto the main surface of the glass substrate through a nozzle; and

a second grinding step of grinding the main surface of the glass substrate after the first grinding step with fixed abrasive particles mainly composed of diamond particles having an average particle size of 2 μm to 10 μm,

wherein the first grinding step includes

a step of grinding the main surface by spraying the particles onto the main surface such that the main surface has an arithmetic average roughness Ra_1 maintained within the range of 1 μm to 5 μm and further an arithmetic average roughness Ra_2, when a cut-off value is set to 2.5 μm to 80 μm, within the range of 0.1 μm to 1.0 μm.

2. The method for manufacturing a glass substrate for an information recording medium according to claim 1,

wherein the main surface has a Vickers hardness of 610 kg/mm^2 or more.

3. The method for manufacturing a glass substrate for an information recording medium according to claim 1 or 2,

wherein the particles have a maximum particle size of 50 μm to 150 μm.

4. The method for manufacturing a glass substrate for an information recording medium according to any one of claims 1 to 3,

wherein the particles are sprayed at a pressure of 0.1 MPa to 1 MPa.

CLAIMS

1. A method for manufacturing a glass substrate for an information recording medium, comprising:

a first step of spraying a plurality of particles onto a main surface of a glass substrate through a nozzle; and

a second step of grinding the main surface of the glass substrate after the first step with fixed abrasive particles mainly composed of diamond particles,

wherein the first step includes

spraying the particles onto the main surface such that the main surface has an arithmetic average roughness Ra_1, when a wavelength region is not set, within a range of 1 μm to 5 μm and further an arithmetic average roughness Ra_2, when the wavelength region is set to 2.5 μm to 80 μm, within a range of 0.1 μm to 1.0 μm.

2. The method for manufacturing a glass substrate for an information recording medium according to claim 1,

wherein the main surface has a Vickers hardness of 610 kg/mm^2 or more.

3. The method for manufacturing a glass substrate for an information recording medium according to claim 1 or 2,

wherein the particles in the first step have a maximum particle size of 50 μm to 150 μm.

4. The method for manufacturing a glass substrate for an information recording medium according to any one of claims 1 to 3,

wherein the particles are sprayed at a pressure of 0.1 MPa to 1 MPa.

5. The method for manufacturing a glass substrate for an information recording medium according to any one of claims 1 to 4,

wherein the diamond particles have an average particle size of 2 μm to 10 μm.

6. The method for manufacturing a glass substrate for an information recording medium according to any one of claims 1 to 5,

wherein the glass substrate is a grass substrate obtained through a direct pressing process.

7. A method for manufacturing an information recording medium, comprising forming at least a magnetic film on a main surface of a glass substrate for an information recording medium obtained in accordance with the method for manufacturing a glass substrate for an information recording medium as recited in any one of claims 1 to 6.

8. A disk-shaped glass substrate to serve as a glass substrate for an information recording medium,

a main surface of the disk-shaped glass substrate having an arithmetic average roughness Ra_1, when a wavelength region is not set, within a range of 1 μm to 5 μm and an arithmetic average roughness Ra_2, when the wavelength region is set to 2.5 μm to 80 μm, within a range of 0.1 μm to 1.0 μm.