

CLAIMS

1. A magnetic-disk glass substrate comprising a pair of main surfaces,
wherein an arithmetic mean roughness (Ra) for wavelength components
of 10 to 50 nm of a surface of the main surfaces is 0.15 nm or less.
2. A magnetic-disk glass substrate comprising a pair of main surfaces,
wherein the arithmetic mean roughness (Ra) for wavelength
components of 10 to 30 nm of the surface of the main surfaces is 0.10 nm or less.
3. A magnetic-disk glass substrate comprising a pair of main surfaces,
wherein the arithmetic mean roughness (Ra) for wavelength
components of 10 to 20 nm of the surface of the main surfaces is 0.10 nm or less.
4. The magnetic-disk glass substrate according to any one of claims 1 to 3,
wherein the arithmetic mean roughness (Ra) of the surface of the main
surfaces is 0.15 nm or less when an area of 1 μm square is divided into sections
of 512 by 512 and each section is measured using an atomic force microscope.
5. The magnetic-disk glass substrate according to any one of claims 1 to 4,
wherein processing in a circumferential direction is not performed on
the main surfaces.
6. The magnetic-disk glass substrate according to any one of claims 1 to 5,
wherein, in a case where samples of inclinations on the main surfaces
are obtained at intervals of 10 nm, a mean square value of the inclinations is
0.0025 or less and a frequency at which square value of the inclinations is 0.004
or more is 15% or less.

7. A magnetic disk in which at least a magnetic recording layer is formed on a surface of the magnetic-disk glass substrate according to any one of claims 1 to 6.

5 8. A magnetic-disk glass substrate comprising a pair of flat main surfaces, wherein, after a magnetic recording layer is formed above the main surfaces to produce a magnetic disk, wavelength components for which an arithmetic mean roughness (Ra) of a surface of the main surfaces is 0.15 nm or less are determined such that a favorable signal-to-noise ratio of reproduced
10 signals is obtained when signals are written in the magnetic recording layer at a linear recording density of 2000 kbp/ or greater.

CLAIMS

1. A magnetic-disk glass substrate comprising a pair of main surfaces, the magnetic-disk glass substrate intended to be used for a magnetic disk having linear recording density equal to or more than 2,000 kbp*i*,

wherein an arithmetic mean roughness (Ra) of a surface of the main surfaces is 0.15 nm or less when an area of 1 μ m square is divided into sections of 512 by 512 and each section is measured using an atomic force microscope,

wherein a texture in the circumferential direction is not formed on the main surfaces, and

wherein an arithmetic mean roughness (Ra) for wavelength components of 10 to 50 nm of a surface of the main surfaces is 0.15 nm or less.

2. A magnetic-disk glass substrate comprising a pair of main surfaces, the magnetic-disk glass substrate intended to be used for a magnetic disk having linear recording density equal to or more than 2,000 kbp*i*,

wherein an arithmetic mean roughness (Ra) of a surface of the main surfaces is 0.15 nm or less when an area of 1 μ m square is divided into sections of 512 by 512 and each section is measured using an atomic force microscope,

wherein a texture in the circumferential direction is not formed on the main surfaces, and

wherein the arithmetic mean roughness (Ra) for wavelength components of 10 to 30 nm of the surface of the main surfaces is 0.10 nm or less.

3. A magnetic-disk glass substrate comprising a pair of main surfaces, the magnetic-disk glass substrate intended to be used for a magnetic disk having linear recording density equal to or more than 2,000 kbp*i*,

wherein the arithmetic mean roughness (Ra) for wavelength components of 10 to 20 nm of the surface of the main surfaces is 0.10 nm or less.

4. The magnetic-disk glass substrate according to claim 3,

wherein the arithmetic mean roughness (Ra) of the surface of the main

surfaces is 0.15 nm or less when an area of 1 μm square is divided into sections of 512 by 512 and each section is measured using an atomic force microscope.

5. The magnetic-disk glass substrate according to claim 3 or 4,
wherein a texture in the circumferential direction is not formed on the main surfaces.
6. The magnetic-disk glass substrate according to any one of claims 1 to 5,
wherein, in a case where samples of inclinations on the main surfaces are obtained at intervals of 10 nm, a mean square value of the inclinations is 0.0025 or less and a frequency at which square value of the inclinations is 0.004 or more is 15% or less.
7. A magnetic disk in which at least a magnetic recording layer is formed on a surface of the magnetic-disk glass substrate according to any one of claims 1 to 6.