CLAIMS

1. A substrate for a magnetic disk, the substrate for magnetic disk comprising:

a disk-shaped substrate main body made of glass or aluminum alloy that has two opposing main surfaces and an outer circumferential edge surface, the outer circumferential edge surface having a side wall surface orthogonal to the main surfaces, and a chamfered surfaces firmed between the main surfaces and the side wall surface; and

a film comprising an alloy containing Ni an P that is formed on the surfaces of the substrate body and continuously formed on the main surfaces, the chamfered surface and the side wall surface,

outer diameter of the disk-shaped substrate body is 90 mm or more,

wherein the substrate for magnetic disk has a thickness (T+D) of 0.520 mm or less, the thickness (T+D) being the sum of a thickness T of the substrate main body and a thickness D of the film,

a ratio D/T of the thickness D of the film to the thickness T of the substrate main body is 0.025 or more,

the thickness of the film provided on the outer circumferential edge surface is thicker than the thickness of the film formed on the main surfaces, and

the thickness of the film provided on the main surfaces are 80% or more of the thickness of the film provided on the outer circumferential edge surface.

2. The substrate for a magnetic disk according to claim 1,

wherein

the thickness of the film provided on the main surfaces is 85% or more of the thickness of the film provided on the outer circumferential edge surface.

3. The substrate for a magnetic disk according to claim 1,

wherein the thickness of the film provided on the main surfaces is 90% or more of the thickness of the film provided on the outer circumferential edge surface.

4. The substrate for a magnetic disk according to any one of claims 1 to 3, wherein the ratio D/T is 0.03 or more.

5. The substrate for a magnetic disk according to any one of claims 1 to 4, wherein a surface roughness maximum height Rz of the film formed on the outer circumferential edge surface is smaller than a surface roughness maximum height Rz of the substrate main body at the outer circumferential edge surface of the substrate main body.

6. The substrate for a magnetic disk according to any one of claims 1 to 5, wherein a surface roughness maximum height Rz of the substrate main body at

the outer circumferential edge surface that forming an interface with the film formed on the outer circumferential edge surface has a surface roughness maximum height Rz of 0.5 μm or more.

7. The substrate for a magnetic disk according to any one of claims 1 to 6, wherein the film has a Vickers hardness Hv of 100 [kgf/mm^2] or more.

8. A magnetic disk,

wherein a surface of the substrate for a magnetic disk according to any one of claims 1 to 7 has at least a magnetic film.

9. A hard disk drive apparatus comprising the magnetic disk according to claim 8 and a magnetic head.

10. The hard disk drive apparatus according to claim 9,

wherein the hard disk drive apparatus has a ramp member for retracting from the magnetic head from the magnetic disk, and wherein the magnetic disk is provided such that the gap between the ramp member and the main surface is 0.2 mm or less.