CLAIMS

1. A manufacturing method of a glass substrate for a magnetic disk having a cleaning step of the glass substrate, wherein the cleaning step comprises a treatment of contacting the glass substrate with a cleaning liquid containing a peroxodisulfate and having a pH of not less than 2 and not more than 4.

2. The manufacturing method of a glass substrate for a magnetic disk according to claim 1, wherein the concentration of peroxodisulfate of the cleaning liquid is not less than 0.005 mol/L and not more than 1 mol/L.

3. The manufacturing method of a glass substrate for a magnetic disk according to claims 1 or 2, wherein the peroxodisulfate is ammonium peroxodisulfate.

4. The manufacturing method of a glass substrate for a magnetic disk according to any one of claims 1 to 3, wherein the pH of the cleaning liquid is not less than 3 and not more than 4.

5. The manufacturing method of a glass substrate for a magnetic disk according to any one of Claims 1 to 4, wherein metallic contaminants on the glass substrate are removed by contacting the glass substrate with the cleaning liquid.

6. A manufacturing method of a glass substrate for a magnetic disk comprising a cleaning step of removing metallic contaminants on the glass substrate, wherein the cleaning step is performed by using a cleaning liquid containing a peroxodisulfate ion under acidic condition.

7. A manufacturing method of a glass substrate for a magnetic disk having a cleaning step of the glass substrate, wherein the cleaning step is performed by using a cleaning liquid containing a peroxodisulfate ion so as to oxidize and dissolve metallic contaminants on the glass substrate.

8. The manufacturing method of a glass substrate for a magnetic disk according to Claim 6 or Claim 7 characterized in that surface roughness of the glass substrate is not lost by the cleaning step.

CLAIMS

1. A manufacturing method of a glass substrate for a magnetic disk having a polishing step and a cleaning step of the glass substrate, wherein the cleaning step comprises a treatment of contacting the glass substrate with a cleaning liquid containing a peroxodisulfate and having a pH of not less than 2 and not more than 4, and the cleaning step is performed after the polishing step.

2. The manufacturing method of a glass substrate for a magnetic disk according to claim 1, wherein the concentration of peroxodisulfate of the cleaning liquid is not less than 0.005 mol/L and not more than 1 mol/L.

3. The manufacturing method of a glass substrate for a magnetic disk according to claims 1 or 2, wherein the peroxodisulfate is ammonium peroxodisulfate.

4. The manufacturing method of a glass substrate for a magnetic disk according to any one of claims 1

to 3, wherein the pH of the cleaning liquid is not less than 3 and not more than 4.

5. The manufacturing method of a glass substrate for a magnetic disk according to any one of Claims 1 to 4, wherein metallic contaminants on the glass substrate are removed by contacting the glass substrate with the cleaning liquid.

6. A manufacturing method of a glass substrate for a magnetic disk comprising a polishing step of the glass substrate and a cleaning step of removing metallic contaminants on the glass substrate, wherein the cleaning step is performed by using a cleaning liquid containing a peroxodisulfate ion under acidic condition, and the cleaning step is performed after the polishing step.

7. A manufacturing method of a glass substrate for a magnetic disk having a polishing step and a cleaning step of the glass substrate, wherein the cleaning step is performed by using a cleaning liquid containing a peroxodisulfate ion so as to oxidize and dissolve

metallic contaminants on the glass substrate, and the cleaning step is performed after the polishing step.

8. The manufacturing method of a glass substrate for a magnetic disk according to Claim 6 or Claim 7 characterized in that surface roughness of the glass substrate is not lost by the cleaning step.

9. The manufacturing method of a glass substrate for a magnetic disk according to any one of claims 1 to 8, wherein the cleaning step is performed by dipping the glass substrate in the cleaning liquid.

10. The manufacturing method of a glass substrate for a magnetic disk according to any one of claims 1 to 9, wherein a surface roughness of the glass substrate is less than 0.28 nm.

11. The manufacturing method of a glass substrate for a magnetic disk according to any one of claims 1 to 10, wherein the cleaning liquid is sulfuric acid or nitric acid added with the peroxodisulfate.