CLAIMS

1. A method for producing a polishing composition, comprising mixing a dispersion containing silica and a solution containing a solvent and a silane coupling agent having a cationic group, the silane coupling agent having a cationic group being contained in the solution at a concentration of 0.03% by mass or more and less than 1% by mass to obtain a dispersion containing cationically modified silica,

wherein the solvent is water or a mixed solvent of water and an organic solvent.

2. The method according to claim 1, wherein a mixed mass ratio of the silica to the silane coupling agent having a cationic group (silica/ silane coupling agent having a cationic group) is in a range of 100/0.05 to 100/0.8.

3. The method according to claim 1 or 2, wherein a concentration of the silane coupling agent having a cationic group in the solution is 0.8% by mass or less.

4. The method according to any one of claims 1 to 3, wherein a concentration of the silane coupling agent having a cationic group in the solution is 0.05% by mass or more and 0.6% by mass or less.

5. The method according to any one of claims 1 to 4, wherein the mixing comprises adding the solution containing the silane coupling agent having a cationic group to the dispersion containing the silica.

6. The method according to any one of claims 1 to 5, wherein

the silica is colloidal silica.

7. The method according to any one of claims 1 to 6, wherein the silane coupling agent having a cationic group is at least one selected from the group consisting of 3-aminopropyltrimethoxysilane, 3-aminopropyltriethoxysilane, 3-aminopropyldimethoxymethylsilane, 3-(2-aminoethylamino)propyltrimethoxysilane, 3-(2-aminoethylamino)propyltriethoxysilane, 3-(2-aminoethylamino)propyldimethoxymethylsilane, 3-aminopropyldimethoxymethylsilane, trimethoxy[3-(methylamino)propyl]silane, trimethoxy[3-(phenylamino)propyl]silane, [3-(N,N-dimethylamino)propyl]trimethoxysilane, [3-(6-aminohexylamino)propyl]trimethoxysilane, N-methyl-3-(triethoxysilyl)propan-1-amine, N-[3-(trimethoxysilyl)propyl]butan-1-amine, and bis[(3-trimethoxysilyl)propyl]amine.

8. The method according to any one of claims 1 to 7, further comprising filtering the dispersion containing the cationically modified silica.

9. The method according to any one of claims 1 to 8, further comprising mixing the dispersion containing the cationically modified silica and a pH adjusting agent.

10. The method according to any one of claims 1 to 9, wherein the organic solvent is selected from at least one of the group consisting of methanol, ethanol, isopropanol, n-butanol, t-butanol, pentanol, ethylene glycol, propylene glycol,

1,4-butanediol, acetone and methyl ethyl ketone.

11. The method according to any one of claims 1 to 10, wherein

the number of coarse particles having a particle size of more than 0.7 μm in the dispersion containing the cationically modified silica is 500,000 particles/mL or less, and

wherein the particle size is measured by a measurement method as follows:

the cationically modified silica is dispersed in water at a concentration of 0.27% by mass and a pH is adjusted to 4.0 to prepare a cationically modified silica aqueous dispersion, and then, the number per unit volume (1 mL) of coarse particles having a particle size of more than 0.7 μm which are present in the cationically modified silica aqueous dispersion is measured by using a liquid particle counter.