CLAIMS

1. A method for regenerating a used polishing slurry containing polishing abrasive particles used in processing for polishing a glass substrate, the method comprising:

a step of forming a mixture including a water-containing aggregate of a saccharide in which an internal portion thereof is dry by adding the saccharide to the used polishing slurry;

a step of removing at least a portion of glass components included in the mixture by centrifuging the mixture; and

a step of crushing a solid portion obtained by the centrifugation.

2. A method for regenerating a used polishing slurry containing polishing abrasive particles used in processing for polishing a glass substrate, the method comprising:

a step of forming a mixture including a water-containing aggregate of a saccharide in which an internal portion having less absorbed water than an outer portion contacting with water by adding the saccharide to the used polishing slurry;

a step of removing at least a portion of glass components included in the mixture by centrifuging the mixture; and

a step of crushing a solid portion obtained by the centrifugation.

3. The method for regenerating a used polishing slurry according to claim 1 or 2, wherein

in the crushing step, the solid portion is crushed after water is added.

4. The method for regenerating a used polishing slurry according to any one of claims 1 to 3, wherein

the saccharide is selected from the group consisting of cellulose, pectin,

protopectin, carrageenan, galactose, xanthan gum, locust bean gum, guar gum, psyllium seed gum, tamarind seed gum, tara gum, chitin, agarose, and a combination thereof.

5. The method for regenerating a used polishing slurry according to any one of claims 1 to 4, wherein

the saccharide is insoluble in water.

6. The method for regenerating a used polishing slurry according to any one of claims 1 to 5, wherein

an addition amount of the saccharide is 0.1 to 5 mass% with respect to a weight of the polishing abrasive particles.

7. The method for regenerating a used polishing slurry according to any one of claims 1 to 6, wherein

a pH of the mixture is 5.5 to 13.

8. A method for regenerating a used polishing slurry containing polishing abrasive particles used in processing for polishing a glass substrate, the method comprising:

a step of forming a mixture by adding a saccharide to the used polishing slurry;

a step of removing at least a portion of glass components included in the mixture by centrifuging the mixture; and

a step of crushing a solid portion obtained by the centrifugation,

wherein the used polishing slurry is a used polishing slurry regenerated with the method for regenerating a used polishing slurry according to any one of claims 1 to 7.

9. A method for regenerating a used polishing slurry containing polishing

abrasive particles used in processing for polishing a glass substrate, the method comprising:

centrifugation processing for performing centrifugation using a treatment liquid containing the used polishing slurry,

wherein the treatment liquid is adjusted to contain a massive object having a surface portion swollen by contact with water and a dried internal portion that is surrounded by the surface portion and that the water is blocked from entering.

10. The method for regenerating a used polishing slurry according to any one of claims 1 to 9, wherein

the polishing abrasive particles contain cerium oxide or zirconium oxide as a main component.

11. A method for manufacturing a magnetic-disk glass substrate, comprising

polishing processing for polishing main surfaces of a glass plate using the polishing abrasive particles regenerated with the method for regenerating a used polishing slurry according to any one of claims 1 to 10.