CLAIMS

1. A method for producing a dispersion of microparticles of an inorganic oxide in an organic solvent which comprises mixing an alcohol dispersion of microparticles of inorganic oxide selected from zirconia and titania with a silane coupling agent in the presence of an acid and stirring the resulting mixture to surface-treat the microparticles of the inorganic oxide at a temperature within a range from −20 to 60°C; and then replacing the alcohol by a lipophilic organic solvent.

2. The method according to claim 1 in which the acid is an organic acid or an inorganic acid.

3. The method according to claim 1 in which the silane coupling agent is at least one selected from a vinyltrialkoxysilane, a (meth)acryloyloxyalkyltrialkoxysilane and a silane coupling agent having a fluoroalkyl group.

4. The method according to claim 1 in which the microparticles of inorganic oxide are those of zirconia, and the silane coupling agent is at least one selected from a vinyltrialkoxysilane and a (meth)acryloyloxyalkyltrialkoxysilane.

5. The method according to claim 1 in which the microparticles of inorganic oxide are those of titania, and the silane coupling agent is at least one selected from a (meth)acryloyloxyalkyltrialkoxysilane and a silane coupling agent having a fluoroalkyl group.

6. The method according to claim 1 in which an alcohol dispersion of microparticles of an inorganic oxide selected from zirconia and titania is mixed with a silane coupling agent in the presence of an acid and the resulting mixture is stirred to surface-treat the microparticles of the inorganic oxide at a temperature within a range from −20 to 25°C; and then replacing the alcohol by a lipophilic organic solvent.

7. The method according to claim 1 or 6 in which the lipophilic organic solvent is methyl ethyl ketone or toluene.

8. The method according to claim 1 or 6 in which the alcohol in the alcohol dispersion is replaced by a lipophilic organic solvent by a method of replacement by distillation or by a method of replacement by ultrafiltration concentration.

CLAIMS:

1. A method for producing a dispersion of microparticles of an inorganic oxide in an organic solvent which comprises mixing an alcohol dispersion of microparticles of inorganic oxide selected from the group consisting of zirconia and titania with a silane coupling agent in the presence of an acid and stirring the resulting mixture to surface-treat the microparticles of the inorganic oxide at a temperature within a range from -20 to 10°C; and then replacing the alcohol by a lipophilic organic solvent, wherein the silane coupling agent is at least one selected from the group consisting of a vinyltrialkoxysilane, a (meth)acryloyloxyalkyltrialkoxysilane and a silane coupling agent having a fluoroalkyl group.

2. The method according to claim 1, wherein the acid is an organic acid or an inorganic acid.

3. The method according to claim 1, wherein the microparticles of inorganic oxide are those of zirconia, and the silane coupling agent is at least one selected from the group consisting of a vinyltrialkoxysilane and a (meth)acryloyloxyalkyltrialkoxysilane.

4. The method according to claim 1, wherein the microparticles of inorganic oxide are those of titania, and the silane coupling agent is at least one selected from the group consisting of a (meth)acryloyloxyalkyltrialkoxysilane and a silane coupling agent having a fluoroalkyl group.

5. The method according to claim 1, wherein the lipophilic organic solvent is methyl ethyl ketone or toluene.

6. The method according to claim 1, wherein the alcohol in the alcohol dispersion is replaced by a lipophilic organic solvent by a method of replacement by distillation or by a method of replacement by ultrafiltration concentration.

7. A method for producing a dispersion of microparticles of an inorganic oxide in an organic solvent which comprises: adding an acid to an alcohol dispersion of microparticles of an inorganic oxide selected from the group consisting of zirconia and titania, and stirring the resulting mixture at a temperature within a range from -20 to 60°C; and then adding a silane coupling agent to the resulting mixture and stirring the mixture at a temperature within a range from -20 to 60°C; and then replacing the alcohol by a lipophilic organic solvent in the resulting dispersion.

8. The method according to claim 7, wherein the acid is an organic acid or an inorganic acid.

9. The method according to claim 7, wherein the silane coupling agent is at least one selected from the group consisting of a vinyltrialkoxysilane, a (meth)acryloyloxyalkyltrialkoxysilane and a silane coupling agent having a fluoroalkyl group.

10. The method according to claim 7, wherein the microparticles of inorganic oxide are those of zirconia, and the silane coupling agent is at least one selected from the group consisting of a vinyltrialkoxysilane and a (meth)acryloyloxyalkyltrialkoxysilane.

11. The method according to claim 7, wherein the microparticles of inorganic oxide are those of titania, and the silane coupling agent is at least one selected from the group consisting of a (meth)acryloyloxyalkyltrialkoxysilane and a silane coupling agent having a fluoroalkyl group.

12. The method according to claim 7, wherein the lipophilic organic solvent is methyl ethyl ketone or toluene.

13. The method according to claim 7, wherein the alcohol in the alcohol dispersion is replaced by a lipophilic organic solvent by a method of replacement by distillation or by a method of replacement by ultrafiltration concentration.