Claims:

1. Method for coating inorganic solid particles in an aqueous suspension with at least one coating substance, comprising the steps:
   a) Disagglomeration of solid particles contained in an aqueous suspension,
   b) Addition of a water-soluble precursor of the coating substance to the suspension,
   c) Immediately following Step b) homogenization of the suspension, where the temperature and pH value of the suspension do not change ~~significantly~~ by a temperature difference of more than 10°C or a pH value difference greater than 1 respectively in Steps a) to c),
   d) Feeding the slurry into a tank and precipitation of the coating substance onto the particle surface and, optionally, application of further coatings,
   e) Separation of the solid particles from the suspension.

2. Method according to Claim 1, characterised in that the solid particles are titanium dioxide particles.

3. Method according to Claim 1 or 2, characterized in that coaing is performed with at least one inorganic coating substance.

4. Method according to Claim 3, characterized in that the coating substance is SiO_2 or Al_2O_3.

5. Method according to one or more of Claims 1 to 4, characterized in that an agitator mill is used in Step a).

6. Method according to one or more of Claims 1 to 5, characterized in that the suspension displays a pH value of roughly 9 to 12, or of roughly 2 to 5, in Step a).

7. Method according to one or more of Claims 1 to 6, characterized in that the suspension displays a temperature of roughly 40 to 80°C in Step a).

8. Method according to one or more of Claims 1 to 7, characterized in that coarse material is removed from the suspension by a classification step after disagglomeration in Step a).