

The invention relates to a method for surface coating of inorganic particles in aqueous phase, in particular of with aluminum oxide, wherein the coating extensively consists of separate layers. The method is characterized in that, following application of the silicon dioxide layer, the particles are separated from the suspension, washed, and heat-treated and then pasted into an aqueous suspension again and coated with at least one additional inorganic compound. The heat treatment preferably occurs at temperatures from 400 °C to 800 °C. Titanium dioxide pigment particles treated with SiO_2 and Al_2O_3 according to the invention are characterized by improved tint reducing power, reduced acid solubility, and an isoelectric point shifted to higher pH values.