

The Shape and Structure of Titanium Dioxide Nanoparticles

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Paper deals with problems of nanoparticles and nanomaterials applied in technical practice. In this time, we are looking for and examining ways of their best properties utilization. When being applied on the base material (metal, plastic, glass, incl. paper, cloth, etc.) In the form of very thin layer, then the base material can obtain very different properties, mostly advantageous, including improvement of their mechanical properties. To obtain these properties, it is necessary to apply nanomaterials in the form of very thin layer and for this purpose we need extremely fine granular nanoparticles that can be produced by means of fine milling technology. Resulting size, structure and shape of individual particles grains have the deciding influence on the successful application of these nanomaterials layers.

Keywords: nanoparticles, engineering practice, grinding processes

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Paper number: M2016204

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