Influence of Chemical Pre-treatments Nanotechnology Based Applied to the Al Sheet on the Roughness and Morphology of the Surface

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The article deals with the analysis of the chemical pre-treatment influence based on nanotechnology on the roughness and morphology of the Al sheet surface. Experimental material is Al-Mg sheet on which were applied two variants of surface chemical pre-treatment. The first chemical pre-treatment variant is based on the application of zirconium passivating product intended for creating of nanomolecular coatings on the surface of metallic material. The second chemical pre-treatment variant consists in application of fluid single-component product for protection of the aluminium surface after previous application of zirconium nanopassivation. Within the experiment are prepared experimental samples, which are as the next included to the surface rougness measurement on the confocal laser microscope. Experimantal samples are further examined in the terms of morphology of the surface thus according to the form of exluded layers of the chemical products on the basic material surface on the laser confocal microscope and on the electron microscope.

Keywords: Nanotechnology, chemical pre-treatment, surface roughness, surface morphology, Al-Mg

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