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Polycomposite coatings on chromiummatrix base

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Abstract

Some peculiarities of polycomposite chromaticy coating formation with dispersed phase of nanoparticles of aluminum oxide and silicon oxide are reviewed. The influence of nanoparticles on the properties of suspensions, the process of electrodeposition of chromium and some performance properties of the coatings are studied. The obtained polycomposite coatings Cr-Al_2O_3-SiO_2 possess improved properties in comparison with control and monocomposite coatings. For the evaluation of coating thickness and chemical composition the X-ray-phase analysis is used. The influence of heat treatment on properties chromaticy coatings is studied.