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**Antimicrobial properties of protective coatings produced by plasma spraying technique**

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**Abstract**

In this work, protective copper-based coatings were deposited on stainless steel substrates by plasma spraying. The coatings were produced from copper alloys and copper composite with addition of titanium dioxide. They are intended for use on sensitive surfaces of furniture and accessories in medical facilities, i.e. operating tables, tables for medical products and surgical instruments. The phase composition and microstructure homogeneity of the produced coatings were examined. The effect of chemical composition and surface development on the biological activity of the obtained coatings was also investigated.

Keywords: protective coatings; antimicrobial properties; plasma spraying; powder metallurgy

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