

INFLUENCE OF SCANNING CONDITIONS ON COATING PROPERTIES

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In the current study the particularities of cold spray zinc coating deposition on cylindrical substrates is considered. Dependence of coatings relief and thickness on spraying strategy was analyzed. It was experimentally shown that scanning velocity and number of layers could lead to significant increasing of coating surface evenness using axisymmetric nozzle. Experiments demonstrated that decreasing of the angle between jet axis and the tangent to a substrate surface (spray angle) leads to decreasing coating roughness. Spraying at a sharp angle is also could be used for deposition of coating with thickness less than 10 μm .

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