powders

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Powders for Cold Spray Coatings

Guest Editor:

Prof. Dr. Pasquale Cavaliere
Department of Innovation Engineering, University of Salento, Via per Arnesano 73100 Lecce, Italy

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Message from the Guest Editor

Dear Colleagues,

The main issue related to the quality of coating produced via cold spray is related to powder properties. For many alloys and composites, the intrinsic powder properties influencing coating performance are still scientifically and technologically unknown or not completely clarified. As a matter of fact, by modifying one or more powder characteristics, the employed processing conditions must also be varied, with various consequences on coating performance. As this involves cold spray coating formation processes due to severe plastic deformation of splatting particles, there are several aspects regarding their initial microstructure and strength and deformation mode that need to be clarified. Thus, deformation behavior (e.g., potential adiabatic shear) is also still under debate. In a more complex vision, all these issues related to the composite powders' behavior open many and broad fields of investigation.

This Special Issue aims to focus on powder properties related to optimal cold spray coatings in order to shed a light on the multiple aspects awaiting clarification.