

Metal powder fluidity evaluation system

We provide metal powders ideal for PBF-type metal additive manufacturing.

Overview

It is desired to develop the optimum metal powder for the metal additive manufacturing of the powder bed system. Especially, it is known that the fluidity of metal powder is an important parameter which affects the quality of the final molded product. For the optimization, it is important to design an appropriate evaluation method. Conventionally, the shape of each powder particle (Circularity, Sphericity), particle size distribution, angle of repose, etc. were evaluated, but they were not sufficient for practical use.

The present invention was completed as a result of further research focusing not only on the characteristics of individual powder particles but also on the behavior of the entire powder bed. The fluidity can be evaluated more effectively than before by quantitatively analyzing the electrical characteristics and dynamic behavior. This is expected to provide a new guideline for the development of metal powders suitable for powder beds. In addition, it is expected to have a ripple effect on powder recycling and control of powder bed equipment.

Product Application

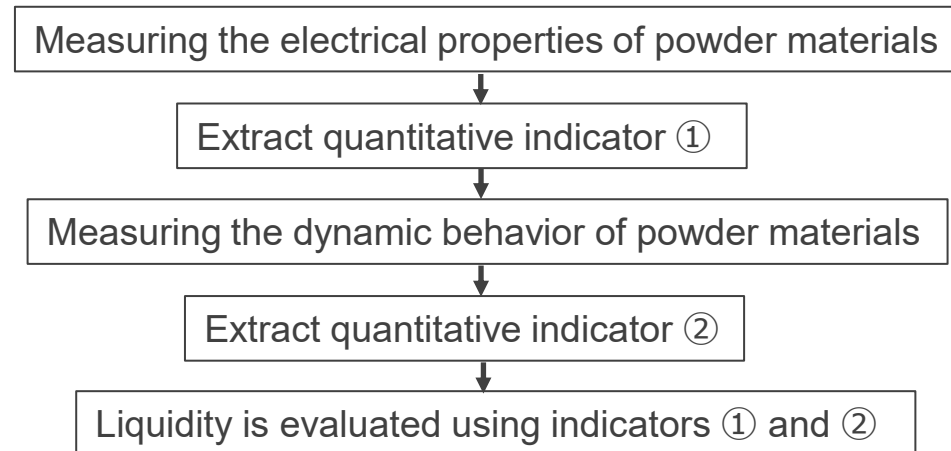
- ❑ Metal powder fluidity evaluation system
- ❑ System for evaluating the recyclability of metal powders
- ❑ Recoater control system for powder bed metal additive manufacturing

IP Data

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The patent for this technology is in unpublished status. If there is a company that is interested, please do not hesitate to contact us.

Flow chart



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