

m4p FeSi2,9

Fe-base for Laser Powder Bed Fusion

Description, properties and applications

m4p™ FeSi2,9 is a **soft magnetic** iron-silicon alloy with a silicon content of 2.9%, designed as a metal powder for additive manufacturing using the laser-based powder bed process. This alloy is characterized by excellent **magnetic permeability**, which makes it ideal for use in **electrical machines, transformers** and **magnetic cores**. Compared to pure iron, the coercivity is significantly lower, while the saturation induction is only slightly lower. Thanks to these properties, m4p™ FeSi2,9 is particularly suitable for the production of components that require rapid **remagnetization** or where exceptional energy efficiency is required. Consequently, such components are primarily used in modern and **highly efficient electric motors**.

Powder characteristics

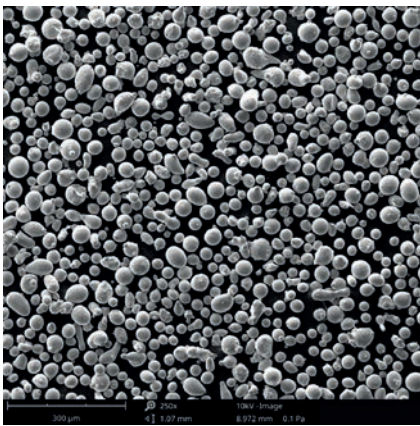


Image: SEM image an m4p™ FeSi2,9 powder

Chemical analysis [wt%]		
Element	Min	Max
Si	2.70	3.20
Fe	Rest	

Other limited elements: C, Cr, Mn, Ni

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