

m4p FeSi6,5

Fe base for laser-based powder bed fusion

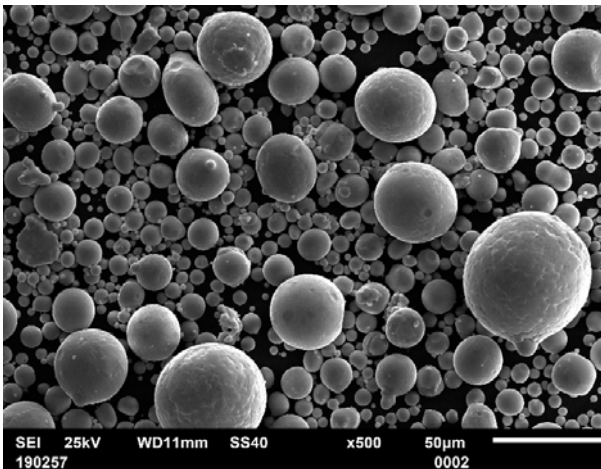
Description, properties and applications

m4p™ FeSi6.5 is an iron-based metal powder from the group of soft magnetic materials. In addition to an easy magnetizability, properties such as a high electrical resistivity, a magnetostriction close to zero and a low magnetocrystalline anisotropy are the main characteristics of this alloy.

The material brittleness, based on its high Si content, is often a limiting factor for conventional manufacturing processes, which in contrast is only of secondary importance in additive manufacturing and consequently qualifies the suitability of the material for this technology.

In this context **m4p™ FeSi6.5** is particularly suitable for the production of components with low wall thicknesses or for further increasing the resistivity with complex topological structures. Consequently, corresponding components are primarily used in modern and highly efficient electric motors.

Powder characteristics



Chemical analysis [wt%]

Element	Min	Max
Si	6,0	7,0
Fe	Basis	

further more limited are: C, Mn, P, S

GERMANY

m4p material solutions GmbH · Germany
 Mittelweg 13, 39130 Magdeburg
 T +49 391 72149-40
 E sales@metals4printing.com

AUSTRIA / INTERNATIONAL

m4p material solutions GmbH · Austria
 Gewerbestraße 4, 9181 Feistritz i. R.
 T +43 4228 93053-0
 E sales@metals4printing.com

www.metals4printing.com