

m4p Fe-CrMo1

Metal powder for laser-based powder bed fusion

Description, properties and application

m4p™ Fe-CrMo1 is a heat-resistant structural steel to be used for temperatures up to 530 ° C. Due to the high working temperatures, the material is used in boiler constructions as well as in power plant constructions or power generation. Preheating up to 200 ° C is an advantage during processing. Parts should be tempered for optimum performance (720 ° C / 0.5h / air cooling).

Powder characteristics

Chemical analysis [wt%]		
Element	Min	Max
C	0,06	0,18
Si		<0,80
Mn		<1,2
Cr	0,7	1,2
Mo	0,3	0,7
Fe		Base

Particle size Laser PBF

Strength properties

Mechanical characteristics of this alloy ¹		
Tensile strength ¹	R _m ~	450 MPa
Yield strength ¹	R _e ~	295 MPa
Yield strength ²	R _e ~	165 MPa
Elongation at break ¹	A ₅ ~	20%

¹ Characteristics according to the regulations in the tempered state for regular material
² at 500 ° C

INTERNATIONAL

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

www.metals4printing.com

GERMANY

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