

# m4p AlSi10Mg

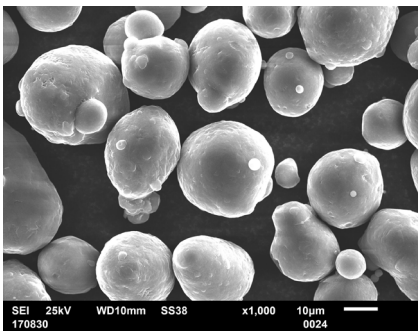
## Metal powder for laser-based powder bed fusion

### Description and properties

**m4p™ AlSi10Mg** is an aluminum-based alloy with good weldability due to the Si and Mg content. In the regular casting process the alloy is characterized by its excellent casting properties and enables the production of thin-walled components with good strength properties.

Components made of **m4p™ AlSi10Mg** have good mechanical strength and can be subsequently machined. T6 heat treatment cycle is applicable.

### Powder characteristics



#### Chemical analysis [wt%]

Element	Min	Max
Si	9,00	11,00
Mg	0,20	0,45
Al	Base	

**Particle size** Laser PBF

**Bulk density** ~1,4 g/cm<sup>3</sup>

### Additive manufacturing and strength properties



#### Typical characteristics of the tensile test

(component density: 2.67 g/cm<sup>3</sup> as-built)

Tensile strength	R <sub>m</sub> =	400 ± 5 N/mm <sup>2</sup>
Yield strength	R <sub>e</sub> =	239 ± 4 N/mm <sup>2</sup>
Elongation at break	A =	7 ± 3%

#### Test cube:

10x10x10mm,  
metallographically  
determined density:

**99,76%**

#### INTERNATIONAL

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