

m4p type62-DX

Fe-base for laser-based powder bed fusion

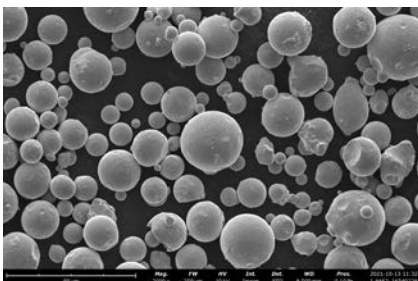
Description, properties and applications

m4p™ type62-DX is a **steel alloy** from the category Duplex. Duplex is a term used in materials science for microstructures that have a two-phase structure of ferrite and austenite. This combines advantages of both microstructures and forms materials with outstanding mechanical strength properties and excellent corrosion resistance. m4p™ Fe-type62-DX corresponds in its composition to DIN material number 1.4462, which is one of the most common duplex steels and achieves **pitting corrosion resistance >32-39** (PREN).

High strengths in combination with excellent corrosion resistance predestine the material for demanding applications in the **oil and gas industry** or **onshore and offshore industry**. m4p™ type62-DX is only topped in its application possibilities by m4p™ type10-SDX, which belongs to the superduplex steels and achieves even higher pitting resistance. For this purpose, m4p™ type62-DX represents an industrially widely used material for which a large number of reference objects exist.

m4p™ type62-DX can be processed very well in the laser-based powder bedding process, and by varying the process temperature or optional post heat treatment, the material properties can be adjusted as required. For further information, m4p will be happy to assist you.

Powder characteristics



Chemical analysis [wt.%]

Element	Min	Max
C		<0,03
Si		<1,00
Mn		<2,00
Cr	21,0	23,0
Ni	4,5	6,5
Mo	2,50	3,50
N	0,08	0,20
Fe	Base	

other limited elements: O, Cu, P, S

Material characteristics

(>99,6% rel. density)

Mechanical properties			
	Tensile strength Rm [N/mm ²]	Yield strength Re [N/mm ²]	Elongation at break A ₅ [%]
Heat-treated - Z	840 ±30	540 ±40	40 ±5

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