Xometry

Datasheet

Mold steel 718-SLM

Introduction

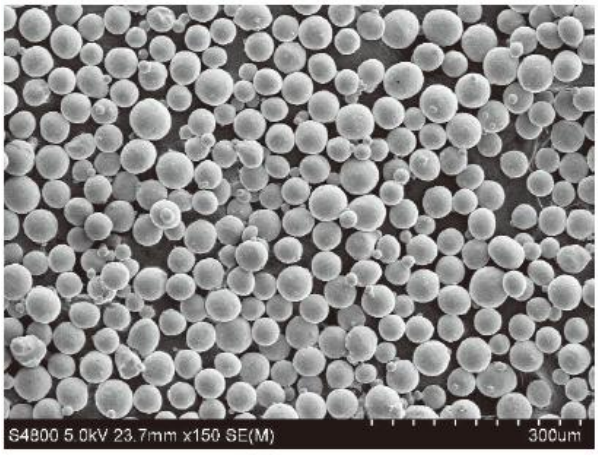
CX steel is a good corrosion resistance material that heat treatment will not affect too much on manufactured parts.

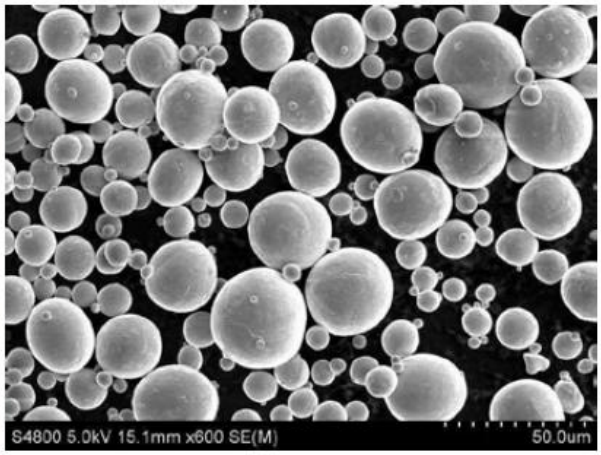
Powder Chemical Composition (wt.%)

Element		Cr	Ni	Mo	Al	Mn	Si
Content	Range	11-13	8.4-10	1.1-1.7	1.2-1.8	0.1-0.3	0.1-0.3

Element		C	P	S	O	N	Fe
Content	Range	≤0.03	≤0.02	≤0.02	≤0.02	≤0.02	Bal.

Powder EM Diagram (spherical degree of 0.9)





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Advantages

CX steel has a good corrosion resistance combined with high strength and hardness. The parts made by CX steel are easily machinable.

Tolerance

200 μm or 0.2%

Attributes

Performance	Printing State	Thermal Treatment State
Tensile Strength (Mpa)	1100±100	1700±50
Yield Strength (Mpa)	850±50	1650±50
Hardness HRC/HV	33±2HRC	49±2HRC
Extensibility	17±3	8±2

Note: Surface hardness can vary greatly depending on how the specimen is prepared.

Heat treatment process: 900℃ / 1h + 500℃ / 3h

Applications

CX steel is mainly suitable for injection mold and mold conformal cooling channel printing, and other industrial applications where high strength and hardness are required.