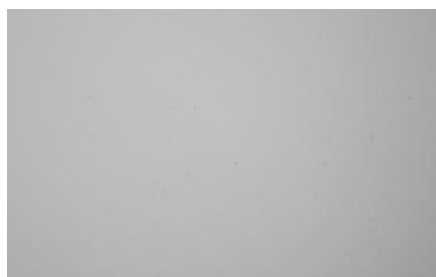
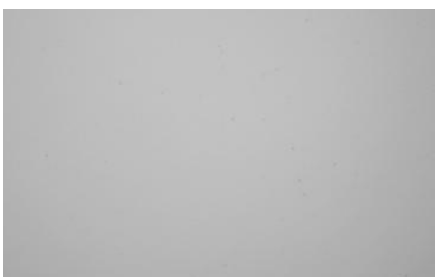
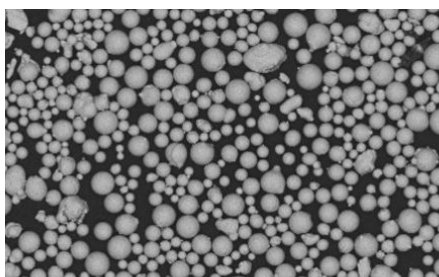


MT-PW01 Die Steel

[Good cutting and polishing performance,
corrosion resistance]

Material Introduction

MT-PW01 is a new type of die steel with alloy elements including Cr, Ni, and Mo. It has good cutting and polishing performance, and corrosion resistance.



Applications

It is suitable for processing plastic injection molding such as shoe molds and leather patterns.



Shoe model



Shoe mold pattern

Chemical Composition (wt.%)

Fe	Ni	C	Mn	P	S	O	N
Bal.	0-5	0-1.0	0-2	≤0.015	≤0.015	≤0.08	≤0.1

Physical Property

Granularity(μm)			Sphericity	Loose density (g/cm ³)	Tap density (g/cm ³)	Flowability (s/50g)
D10	D50	D90				
≥15	30-40	≤60	≥0.9	≥4.0	≥4.5	≤20

Parameters

Laser power(W)	Laser speed(mm/s)	Scanning spacing(mm)	Layer thickness (mm)
275	950	0.08	0.04



Mechanical Property

Condition	Rockwell Hardness/HRC	Tensile Strength/MPa	Elongation/%
As-Deposited	44-47	≥ 1150	≥ 13.0
Heat-Treated	32-34	≥ 950	≥ 19.0

Advanced Powder Metallurgy Technology



The powder metallurgy technology and equipment production line--
Vacuum Induction Gas Atomization (AVI-VIGA)



The powder metallurgy technology and equipment production line--
Non-Vacuum Gas Atomization (AVI-GA)

Adapting Devices

10+ proprietary LPBF equipment systems supporting build sizes from 100 mm to 1500 mm.



MT280 LPBF Equipment

265mm × 265mm × 400mm (X × Y × Z)
500W × 1 / × 2



MT400M LPBF Equipment

420mm × 350mm × 400mm (X × Y × Z)
500W × 4 / × 6



MT400S LPBF Equipment

450 × 400 × 400mm (X × Y × Z)
500W × 4 / × 6

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