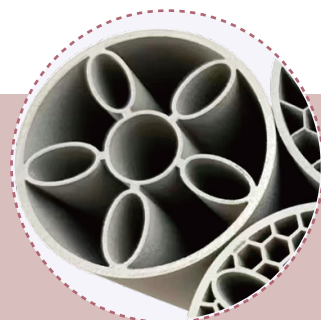




18Ni300 Die Steel

18Ni300 is characterized by high hardness and toughness. Compared with traditional steel, 18Ni300 steel has excellent weldability, thermoplasticity and processability. It has good toughness while having ultra-high strength.



Advantage

- > Excellent corrosion resistance and heat treatment has no great influence on the corrosion resistance of the material
- > Good dimensional stability after heat treatment
- > Can reach 34–50 HRC through heat treatment

Ideal Applications

- > Aerospace
- > Chemical
- > Defense
- > Atomic Energy
- > High performance Mold

Chemical Composition

Fe	Si	Ni	P	Co	C	Mo	S	Ti	O	Ai	N
Bal.	0.02	17.88	0.006	8.99	0.006	4.72	0.003	0.75	0.025	0.14	0.005

Technical Datasheet

General Properties	Density ISO3369	≥8.20g/cm ³
Mechanical Properties (As built)	Tensile Strength ISO6892-1	≥1100 MPa
	Yield Strength ISO6892-1	≥1000 MPa
	Elongation after Fracture ISO6892-1	≥10 %
	Vickers hardness ISO6507-1	
	Hardness (HRC) ISO6507-1	33–35
	Thermal conductivity at 20 °C	16 W/mK–18 W/mK
	Surface roughness Ra X, Y	5 μm–10 μm
	Surface roughness Ra Z	10 μm–15 μm
Mechanical Properties (Heat treated)	Tensile Strength ISO6892-1	≥2000 MPa
	Yield Strength ISO6892-1	≥1900 MPa
	Elongation after Fracture ISO6892-1	≥4 %
	Vickers hardness ISO6507-1	
	Hardness (HRC) ISO6507-1	51–53
	Thermal conductivity at 20 °C	16 W/mK–18 W/mK
	Surface roughness Ra X, Y	5 μm–10 μm
	Surface roughness Ra Z	5 μm–10 μm

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