



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

I Ideal Applications

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

I Chemical Composition

Fe	Si	Ni	P	Co	C	Mo	S	Ti	0	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/cm³		
	Tensile Strength ISO6892-1	≥1100 MPa		
	Yield Strength ISO6892-1	≥1000 MPa		
	Elongation after Fracture ISO6892-1	≥10 %		
Mechanical Properties	Vickers hardness ISO6507-1			
(As built)	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		
	Tensile Strength ISO6892-1	≥2000 MPa		
	Yield Strength ISO6892-1	≥1900 MPa		
Mechanical Properties	Elongation after Fracture ISO6892-1	≥4 %		
(Heat treated)	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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