

Technical Information

wt-%	Fe	Ni	Co	Mo	Ti	Al	Cr	Cu	C	Mn	Si	P	S	Nb
18Ni300	Bal	17-19	8.5-9.5	4.5-5.2	0.6-0.8	0.05-0.15	≤0.5	≤0.5	≤0.03	≤0.1	≤0.1	≤0.01	≤0.01	
17-4	Bal	3-5		≤0.5			15 – 17.5	3-5	≤0.07	≤1	≤1			0.15 - 0.45
316	Bal	10-14		2.0-3.0			16-18.5		≤0.08	≤1	≤1	≤0.035	≤0.03	

wt-%	Fe	Ni	Co	Mo	Ti	Al	Cr	Cu	C	Mn	Si	P	S	Nb	B
In718	Bal	50-55	1.0	2.8-3.3	0.65-1.15	0.2-0.8	17.0–21.0	0.3	0.08	0.35	0.35	0.015	0.015	4.75–5.5	0.006

Mechanical Properties of AM 18Ni300

	As Heat-treated	Annealed,
Tensile Strength	1100±100MPa	2050±100MPa
Yield Strength	1050±100MPa	1990±100MPa
Modulus of Elasticity	160±25GPa	180±20GPa
Hardness	33-37HRC	50-56HRC

Mechanical Properties of AM 17-4

	As Sintered	As Heat-treated
Tensile Strength	930±50MPa	1100MPa
Yield Strength	586±50MPa	590MPa
Modulus of Elasticity	170±30GPa	180GPa
Hardness	230±20HV1	

Mechanical Properties of AM In718

	As Sintered	As Heat-treated, AMS 5662
Tensile Strength	$1060 \pm 50 \text{MPa}$	$1400 \pm 100 \text{MPa}$
Yield Strength	$780 \pm 50 \text{MPa}$	$1150 \pm 100 \text{MPa}$
Modulus of Elasticity	$160 \pm 20 \text{GPa}$	$170 \pm 20 \text{GPa}$
Hardness	30HRC	47HRC