

Inconel 718	2.4668	UNS: N07718
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**Chemical Composition**

Element	Weight Percentage
Fe	Balance
Ni	50-55
Cr	17-21
Nb & Ta	4.5-5.5
Mo	2.8 – 3.3
Ti	0.75-1.15
Al	0.3-0.7
Co	< 1
C	<0,08
Cu	<0.3
B	<0.006
Mn, Si	<0.35
P, S	<0.015

**Properties by MT3D’s production process**

Mechanical	UTS (as build) UTS (after age hardening)	950 MPa ± 50 MPa 1400 MPa ± 50 MPa
	Yield strength (Rp0.2%)(as build) Yield strength (Rp0.2%)(after age hardening)	630 MPa ± 50 MPa 1150 MPa ± 50 MPa
	Elongation at break (as build) Elongation at break (after age hardening)	15 % ± 2 % 8 % ± 2 %
	Young’s modulus	170 GPa ± 20 GPa
	Rockwell (as build) Rockwell (after age hardening)	30 Hrc 47 Hrc
Thermal	Conductivity (20°)	11 W/m*K
	Specific heat cap (20°)	450 J/kg*K
	Maximal operating temp (loaded) Maximal operating temp (oxidation resistance)	650°C 960°C
	Melting Point	1280°C