

		Material Type
Alloy 718	S Ni 7718	2.4668

Characteristics

Solid wire designed for 3D-printing of alloy 718 structures. The structure can be heat treated (hardened) to increase the strength of the structure.

Typical analysis of the solid wire (wt.-%)

	C	Si	Mn	Cr	Mo	Ni	Nb	Al	Ti	Fe
wt.-%	0.05	< 0.1	<0.1	17.6	3.0	Bal.	5.2	0.45	0.95	19.5

Heat input: 1.5 kJ/mm.

Available products

Diameter: 1,0 mm – 1,2 mm

Package: BS300 15 kg – ECOdrum 100 – ECOdrum 250 – S760 300

Other diameters and packages on request.

Typical mechanical properties acc.to EN ISO 15792-1

Heat treatment	Test temperature	Yield strength R _{p0.2}	Tensile strength R _m	Elongation (L ₀ =5d ₀)	Impact energy ISO-V KV J	
					+20 °C	-196 °C
u	20	530	800	32	60	45
u	600	420	670	33		
h	20	930	1110	4		
h	600	785	890	4		

u untreated, shielding gas Ar + 30 % He + 2 H₂ + 0.005 % CO₂

h hardened, 960 °C – 0,5 h, air cooled to 20 °C, 720 °C – 8 h, 2 h furnace cooling, 620 °C – 8h, air

Classification as welding consumable:

EN ISO 18274	AWS A5.14
G NiCr19Fe19Nb5Mo3	ERNiFeCr-2