

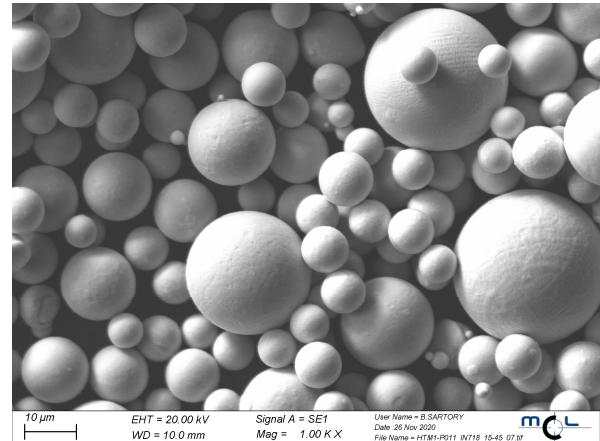
Nickel based: MET In718

Alternative designation: 2.4668 / Inconel 718

Description and general material properties

MET Inconel 718 is a high-strength, corrosion-resistant nickel chromium material used in a wide temperature range from cryogenic to high temperature applications. The age-hardenable alloy can be readily fabricated, even into complex parts. Its welding characteristics, especially its resistance to post-weld cracking, are outstanding.

The ease and economy with which MET IN718 can be fabricated, combined with good tensile, fatigue, creep, and rupture strength, have resulted in its use in a wide range of applications. Examples of these are components for liquid fueled rockets, rings, casings and various formed sheet metal parts for aircraft and land-based gas turbine engines, and cryogenic tankage. It is also used for fasteners and instrumentation parts.



Powder characteristics

Chemical composition		
Element	Min [wt%]	Max [wt%]
Ni	50,0	55,0
Cr	17,0	21,0
Nb	4,75	5,5
Mo	2,8	3,3
Ti	0,65	1,15
Co		1,0
Al	0,2	0,8
Si		0,35
Mn		0,35
Others total		0,5
Fe	Balance	Balance