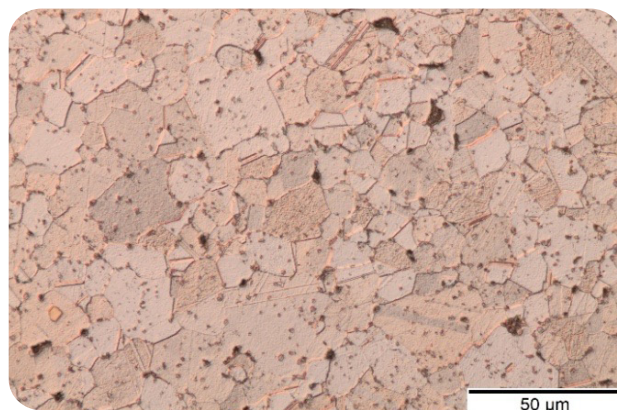
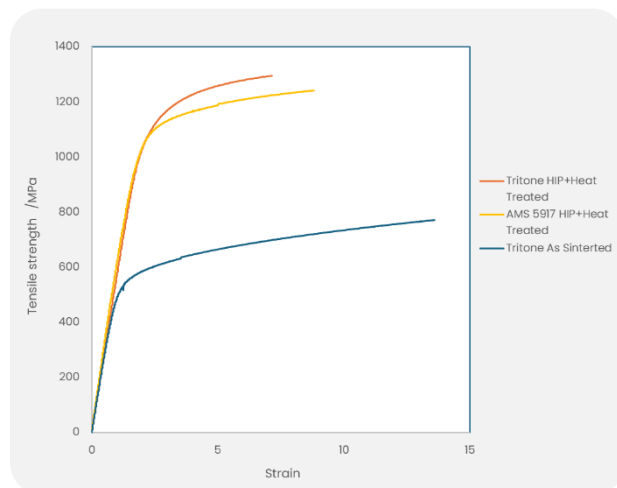


MATERIAL DATASHEET

INCONEL 718 SUPER ALLOY

COMPOSITION (AMS 5917)

Composition	Amount
Nickel	50.0–55.0%
Chromium	17.0–21.0%
Niobium	4.75–5.50%
Molybdenum	2.8–3.3%
titanium	0.65–1.15%
Cobalt	1.00%
Aluminum	0.2–0.8%
Manganese	0.35%
Silicon	0.35%
Copper	0.30%
Carbon	0.08%
Oxygen	0.06%
Nitrogen, sulfur, Phosphorous	0.02%
Boron	0.01%
Nickel	50.0–55.0%



MECHANICAL PROPERTIES

Properties	Test Standard	Tritone As sintered	Tritone HIP+Heat Treatment	AMS 5917 HIP+Heat Treatment
Ultimate Tensile Strength	ASTM E8	1035 MPa	1290 MPa	1241 MPa
0.2% Yield Strength	ASTM E8	800 MPa	1120 MPa	1034 MPa
Elongation at Break	ASTM E8	6–14%	>6%	6%
Hardness	ASTM E18	34 HRC	40 HRC	34–44 HRC
Relative density	ASTM B962	98%	99.5%	97%

The mechanical properties are typical values obtained by independent laboratory from parts processed in an industrial sintering furnace.