

Inconel (IN718)

Inconel (IN718) is a high-strength, corrosion-resistant alloy with exceptional thermal resistance. Ideal for functional prototypes and high-performance parts that need to withstand extreme conditions.



Parameter	IN718	Performance	Unit	Standard
Density	>8.07	>8.15	g/cm ³	WGE-Prod-067EN
Relative Density	>99	>99.5	%	WGE-Prod-067EN
Tensile Strength	>940	>1,000	Mpa	DIN EN2002-1
Yield Strength	>750	>760	MPa	DIN EN2002-1
E-Modulus	220	200	GPa	DIN EN2002-1
Elongation at Break	>8	>20	%	DIN EN2002-1
Roughness Ra	<15	<15	µm	ISO 4287 / AITM 1-00070
Roughness Rz	<60	<60	µm	ISO 4287 / AITM 1-00070
Hardness	>300	>300	HV	ISO 6597-1:03-2006

Actual values may vary with build conditions.

Strong tensions due to part geometry may distort parts, potentially leading to greater deviation in values. Values for surface roughness depend on the orientation of the surface; downward-facing surfaces and surfaces with support will be rougher. These measurement values show the material characteristics with additional stress relief heat treatment. Extra heat treatment steps or aging for even higher mechanical properties may be possible, e.g. for serial-produced parts. Please [get in touch with our team](#) for more information.

For more information on this material, please visit mtls.am/inconel-718.

