

# 3D Metal – Maraging Steel Material Information

Parts are typically printed and then machined. Clients like to complete the final machining once their part or insert is printed. This can speed up the delivery process depending on available machine type and time.

<b>Physical Properties</b>	
<b>Properties</b>	<b>Metric / Imperial</b>
Tensile strength	1158MPa / 168000psi [XYZ]
Yield strength (@strain 0.200 %, temperature 538°C/@strain 0.200 %, temperature 1000°F)	1056MPa / 153200psi [XYZ]
Bulk modulus (typical for steel)	140Gpa / 20300ksi
Shear modulus (estimated from elastic modulus)	73GPa / 10600ksi
Elastic modulus	190GPa / 27600ksi
Poisson's ratio	0.3
Elongation at break (in gage length of 4.5 times the square root of the area, @ 316°C/600 °F)	12% [XYZ]
Reduction of area (@427°C/800°F)	61.30%
Hardness (as grown)	34-36 HRC
Hardness - Heat treated	54-56 HRC
Shrink - age hardening	approx 0.08%
Density	8.10 g/cm <sup>3</sup> / 0.292 lb/in <sup>3</sup>