

MIM 4605 Austempered

Material Properties	Kinetics
	Typical
Ultimate Strength (KSI)	222
Yield Strength (KSI)	197
Elongation (% in 1")	3
Reduction in Area (%)	6
Surface Finish (Ra)	40
Impact Energy (ft-lbf) ¹	-
Macro Hardness (R15N)	84
Sintered Density (g/cm ³)	7.6

¹Test method uses ½ sized un-notched charpy bar.



Material Description

Low alloy steel containing carbon, nickel, molybdenum. A multi-purpose, economical material that offers various strength, hardness and wear resistance properties depending if it is heat treated and the heat treat process used. Can be plated or coated for corrosion resistance. Used by a very wide range of industries including automotive, consumer product, firearms, power hand tools, structural and applications where good strength, hardness and wear resistance is required.

An austemper heat treat imparts some spring characteristics to the material, while increasing hardness, wear resistance, and impact strength over that of an as-sintered part.

Material Composition

Fe	Ni	Mo	C (Max)	Si (Max)
Balance	1.5-2.5	0.2-0.5	0.4-0.6	1.0