

Kinetics

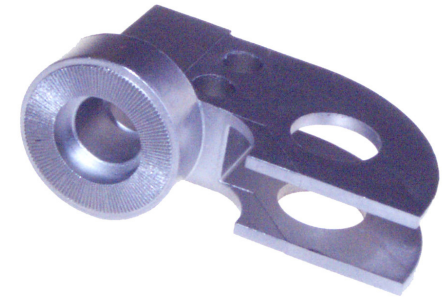
A Climax Engineered Materials Company

MATERIALS & PROPERTIES

MIM 420-2 HIP and Vacuum Heat Treat

Material Properties	Kinetics
	Typical
Ultimate Strength (KSI)	252
Yield Strength (KSI)	186.5
Elongation (% in 1")	3.5
Reduction in Area (%)	5
Surface Finish (Ra)	40
Impact Energy (ft-lbf) ¹	61
Macro Hardness (R15N)	83
Sintered Density (g/cm ³)	7.71(HIP)

¹Test method uses 1/2 sized un-notched charpy bar.



Material Description

Martenistic stainless steel. Very good strength, hardness, and wear resistance while offering some corrosion resistance. Magnetic. Less distortion typically with vacuum heat treat over that of oil quench. Often used for aerospace, automotive, cutlery, defense, power hand tools, sporting equipment industry, surgical instruments and applications where high strength, hardness and some corrosion resistance is required.

Material Composition

Fe	Cr	C	Mn (Max)	Si (Max)
Balance	12-14	0.15 – 0.4	1	1