

# Typical Properties of MIM Materials

Materials	Grades	Density (g/cm <sup>3</sup> )	Hardness
<u>Stainless Steels</u>	<u>17-4 PH</u>	7.60	35 – 40 HRC
	<u>304L</u>	7.80	120 HV
	High C-314	7.65	180 HV
	<u>316L</u>	7.85	120 HV
	<u>317L</u>	7.85	120 HV
	<u>420</u>	7.40	45 – 50 HRC
	<u>440C</u>	7.50	55 – 58 HRC
	<u>HK-30</u>	7.55	200 HV
	<u>1.4957</u>	7.65	140 HV
	<u>Panacea</u>	7.60	290 HV
<u>Case Hardened Steels</u>	<u>2200</u>	7.50	500 – 600 HV
	<u>2700</u>	7.60	500 – 600 HV
	<u>8620</u>	7.40	800 HV
<u>Hardened &amp; Tempered Steels</u>	<u>FeNi8</u>	7.50	400 HV
	<u>4140</u>	7.50	42 – 48 HRC
<u>Controlled Expansion Alloys</u>	<u>Alloy 42</u>	7.55	110 HV
	<u>F-15 (Kovar)</u>	7.70	65 HRB
<u>Soft Magnetic Alloy</u>	<u>FeSi3</u>	7.50	75 HRB
<u>Cobalt-Chromium Alloys</u>	<u>F75</u>	8.00	225 HV
<u>Ni-Fe-Mo Alloy</u>	<u>Fe80Ni4Mo</u>	8.40	290 HV
<u>Ni-Cr Superalloy</u>	<u>Inconel 713C</u>	7.80	290 HV
<u>Tungsten Alloy</u>	<u>W95NiFe</u>	17.5	25 HRC
<u>Pure Copper</u>	<u>Cu</u>	8.40	100 HV