



High Hardness

	17-4 Stainless	440C	4140
Carbon	0.07	.95 to 1.20	.38 to .43
Copper	3 to 5	-	-
Chromium	15 to 17.5	18 to 21	0.8 to 1.1
Iron	73	80	96.8
Manganese	1.0	0.4 to 1.0	0.7 to 1.0
Nickel	3-5	1	-
Phosphorous	0.04	0.04	0.035
Sulfur	0.03	1.0	0.04
Silicon	1	1	0.15 to 0.3
Molybdenon	-	0.75	0.15 to 0.25

The highest hardness stainless materials we have milled by diamond-impreg mills and shoes was 17-4 with a stated 40 HRC hardness with possible work hardening condition estimated at 55 HRC.

The enclosed case history shows a solid 17-4 stainless "flow target" loose that was cut in 4 hours with an XDS shoe (enclosed).