



Ancorsteel® 150 HP

Ancorsteel 150 HP is a water atomized low-alloy steel powder for high performance applications. The prealloyed 1.5 w/o molybdenum addition permits extremely good compressibility and provides good response to heat treatment. Ancorsteel 150 HP is a good base powder for a wide range of hybrid alloy systems.

Typical Analysis and Properties

Composition (weight %) (w/o)

C	Mn	Mo	O
<0.01	0.12	1.5	0.08

Apparent Density

2.95 g/cm³

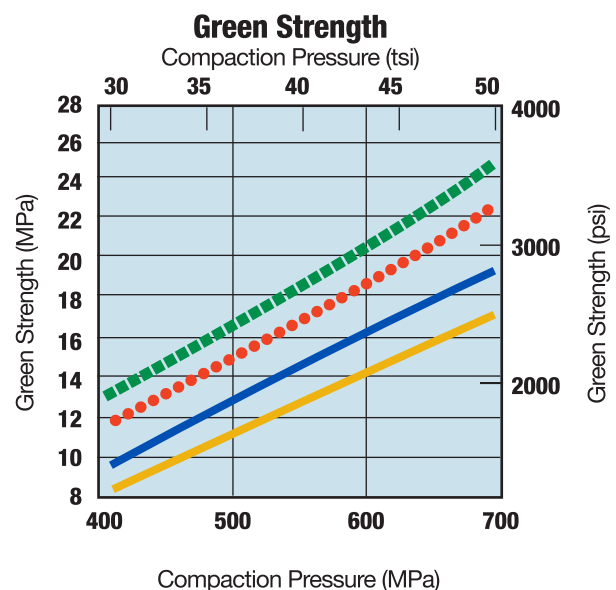
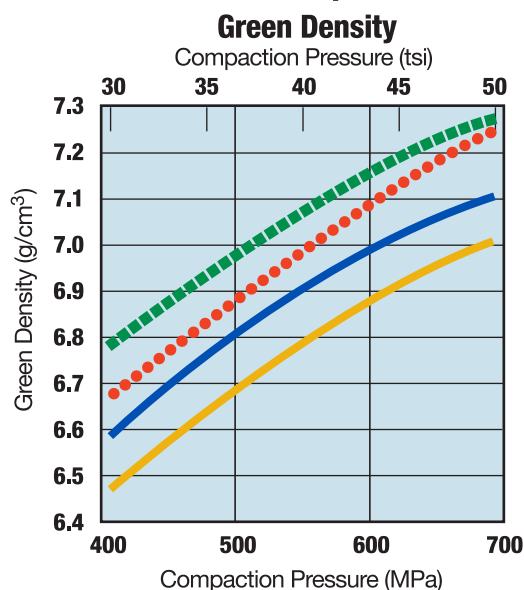
Flow Rate

25 s/50g

Sieve Distribution (w/o)

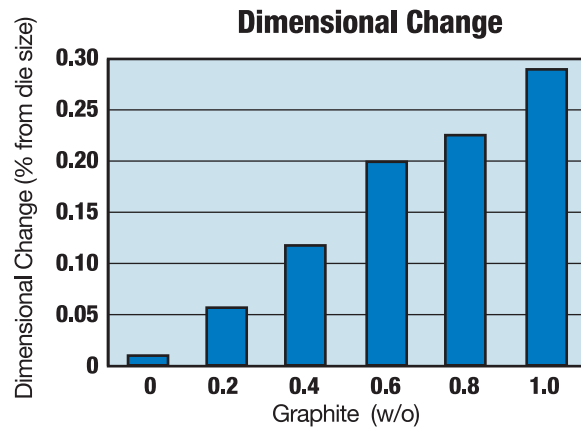
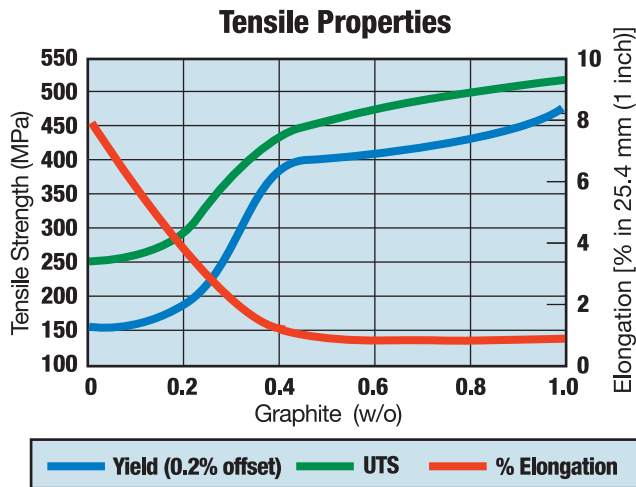
Micrometers	+250	-250 /+150	-150 /+45	-45
U.S. Standard Mesh	(+60)	(-60 /+100)	(-100 /+325)	(-325)
	Trace	11	66	23

The Effect of Compaction Pressure on Ancorsteel 150 HP with 0.5 w/o Zinc Stearate



Ancorsteel® 150 HP

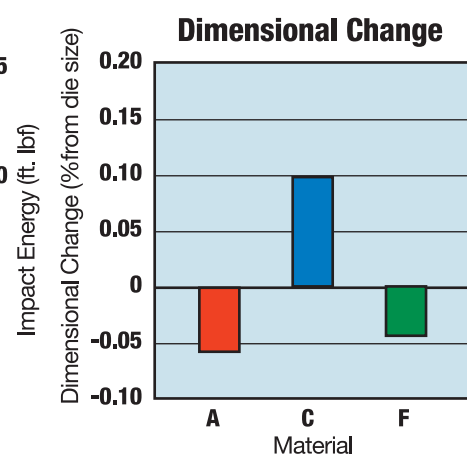
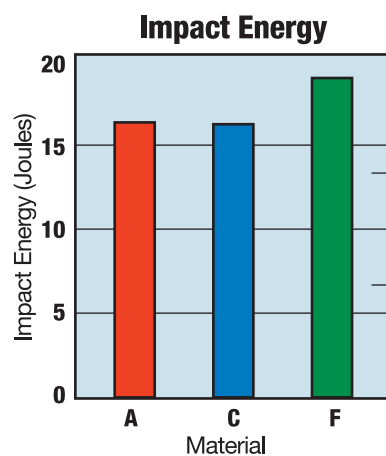
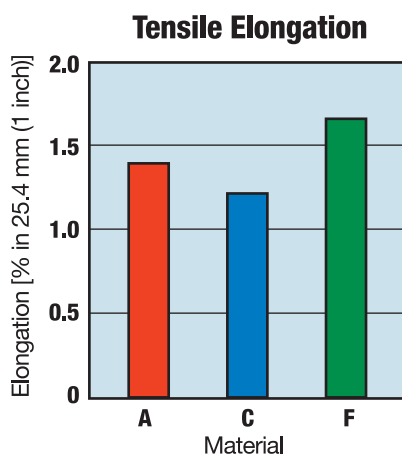
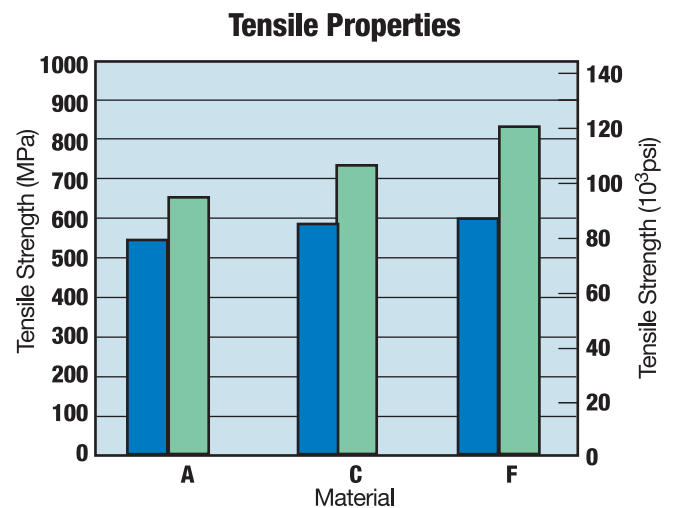
Properties of Sintered Compacts with Various Graphite Additions



Ancorsteel 150 HP plus various amounts of graphite. All specimens were compacted at 620 MPa (45 tsi) and sintered at 1120°C (2050°F) for 30 minutes in dissociated ammonia.

Properties of Sintered Compacts of Ancorsteel 150 HP

Material	A	C	F
Nickel (w/o)	2	2	4
Copper (w/o)	0	1	1
Graphite (w/o)	0.5	0.5	0.5

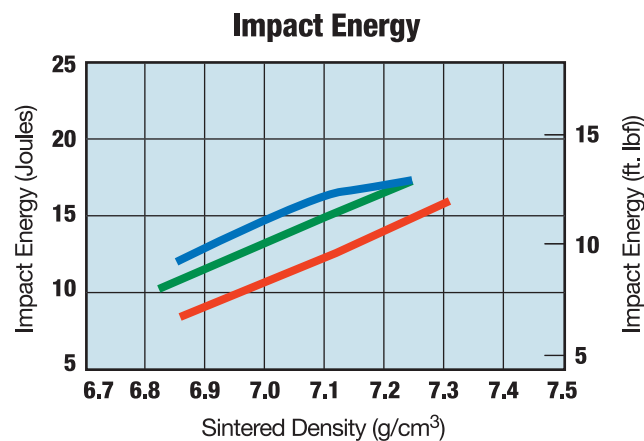
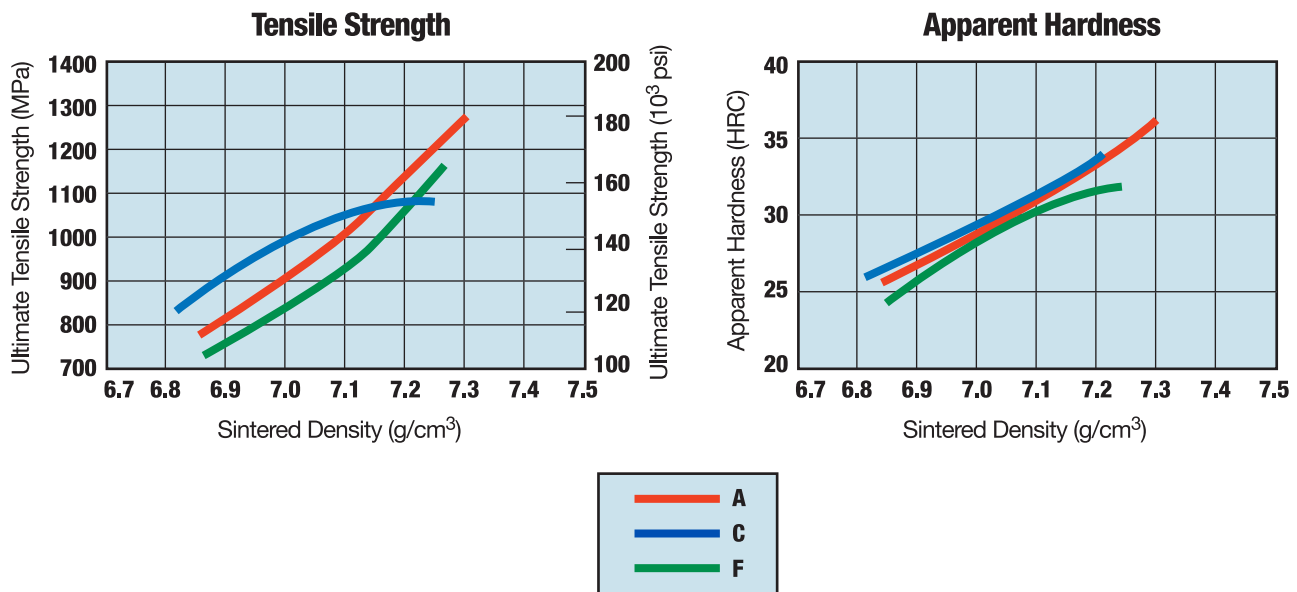


All specimens were compacted at 620 MPa (45 tsi) and sintered at 1120°C (2050°F) for 30 minutes in dissociated ammonia.

Ancorsteel® 150 HP

Sinter-hardening (Effects of Accelerated Furnace Cooling)

Material	A	C	F
Nickel (w/o)	2	2	4
Copper (w/o)	0	1	1
Graphite (w/o)	0.5	0.5	0.5



All compacts were prepared with 0.5 w/o graphite and 0.5 w/o zinc stearate. They were compacted at 620 MPa (45 tsi) and sintered at 1120°C (2050°F) for 30 minutes in dissociated ammonia followed by accelerated cooling in the water jacketed cooling zone.

IMPORTANT NOTICE: The data shown are based on laboratory processing standard test specimens. Results may vary from those obtained in production processing.