



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

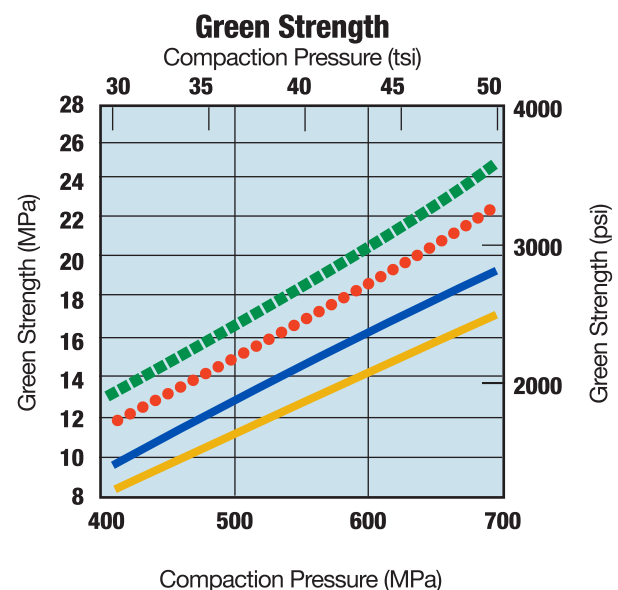
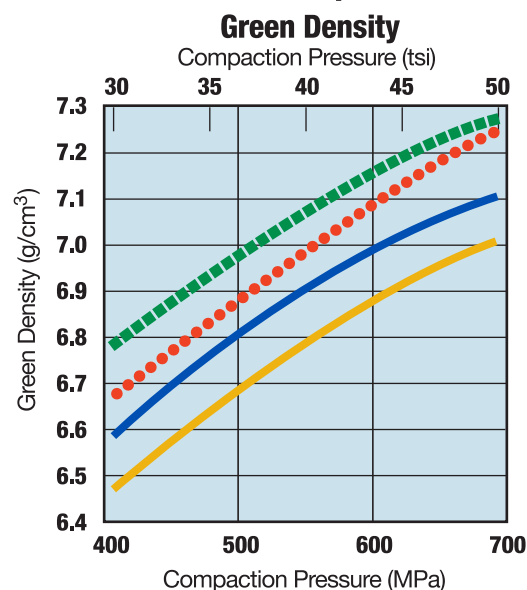
Flow Rate

25 s/50g

Sieve Distribution (w/o)

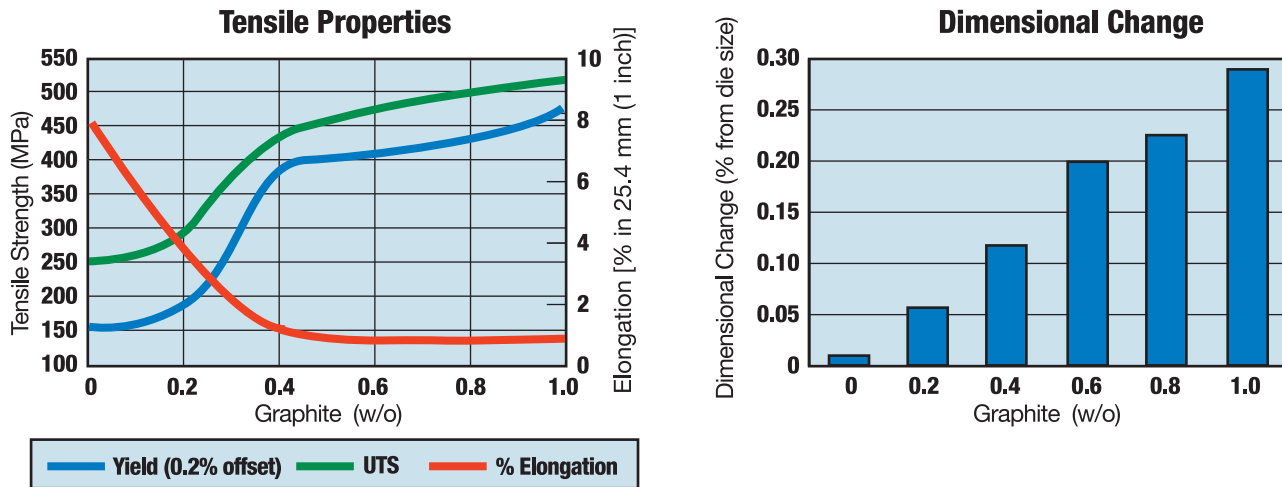
Micrometers	+250	-250 /+150	-150 /+45	-45
U.S. Standard Mesh	(+60)	(-60 /+100)	(-100 /+325)	(-325)
	Trace	11	66	23

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



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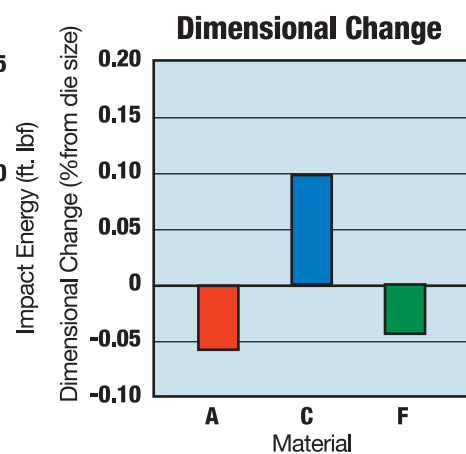
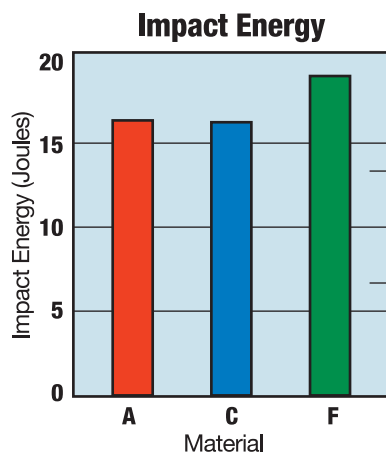
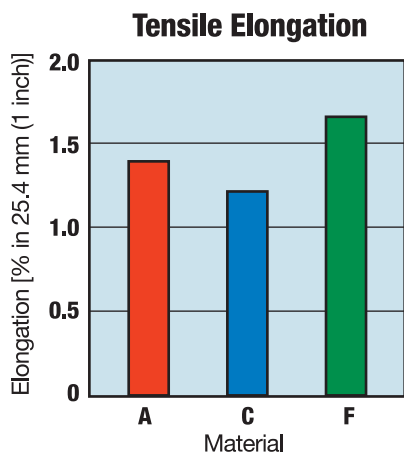
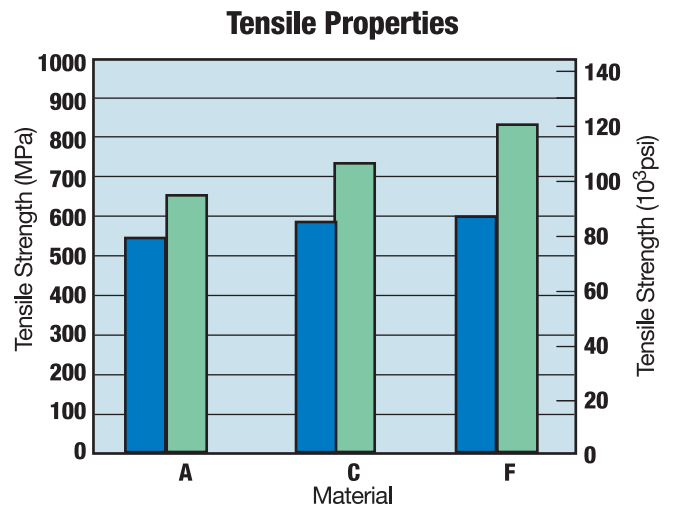
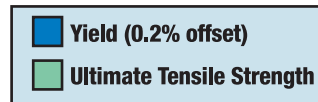
Properties of Sintered Compacts with Various Graphite Additions



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

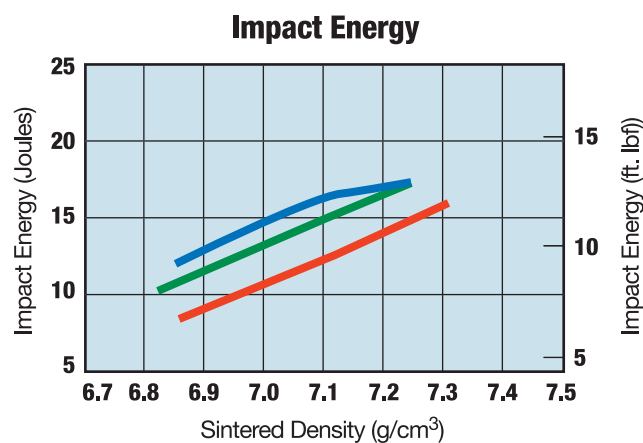
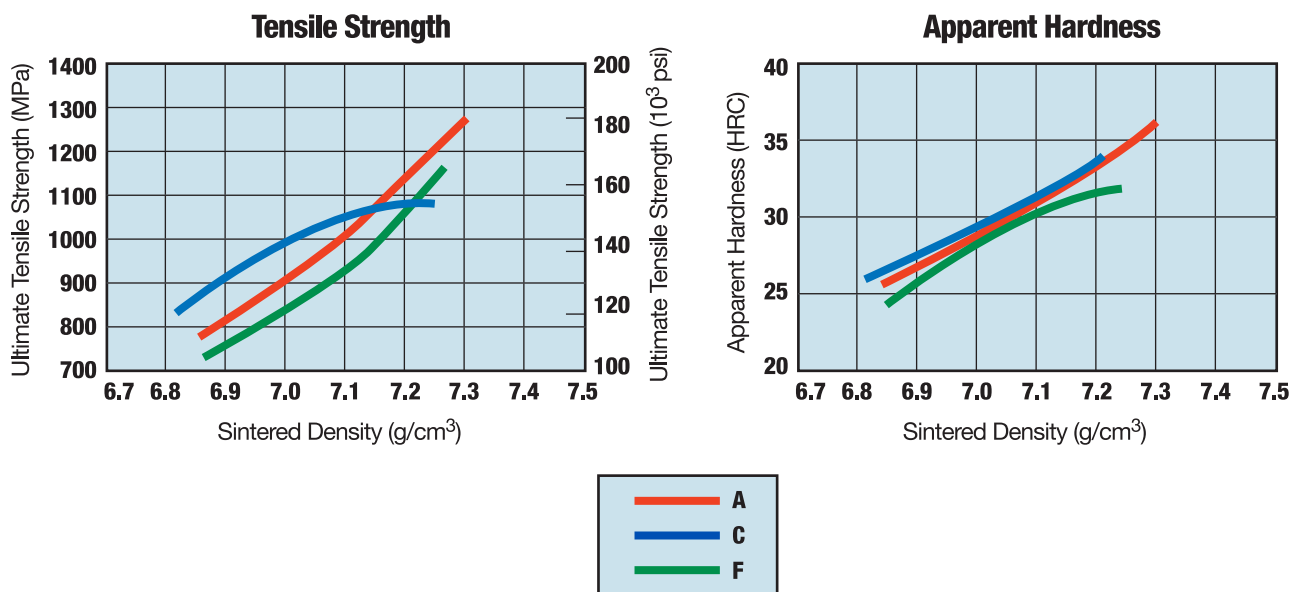


All specimens were compacted at 620 MPa (45 tsi) and sintered at 1120°C (2050°F) for 30 minutes in dissociated ammonia.

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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.