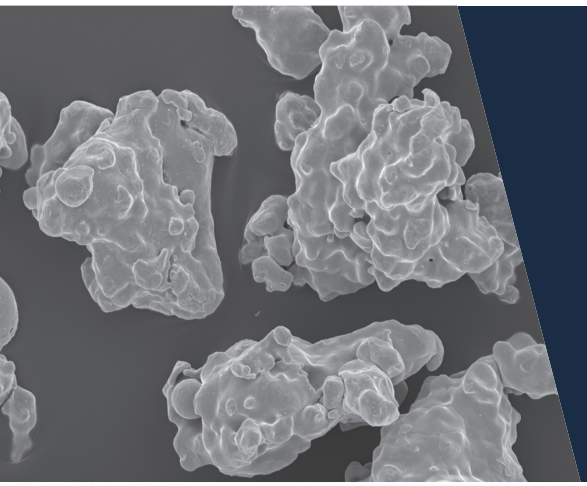
ANCORSTEEL 50 HP



This is a water-atomized, prealloyed, low-alloy steel powder for high performance applications. The prealloyed 0.50 weight % molybdenum addition results in high compressibility and provides good response to heat treatment. Ancorsteel 50 HP is an ideal base powder for a wide range of copper, nickel, chromium, and manganese hybrid alloy systems. This material conforms to MPIF standard 35 for FL-400X.

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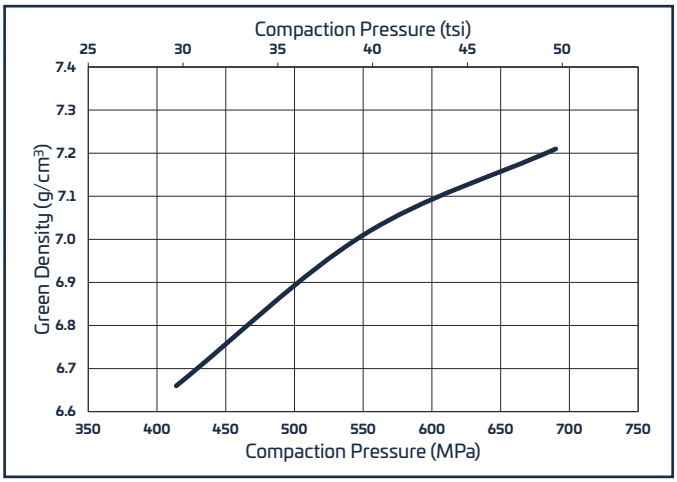
Nominal Chemistry *(weight %)*		
Iron	Manganese	Molybdenum
Bal.	0.15	0.50

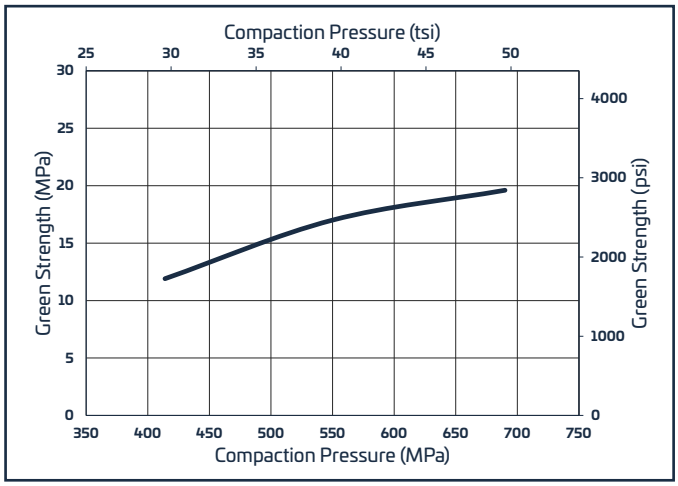
Typical Particle Size *(weight %)*				
Micrometers	+250	-250/+150	-150/+45	-45
U.S. Standard Mesh	(+60)	(-60/+100)	(-100/+325)	(-325)
	Trace	10	70	20

Green Density



(with 0.75 wt% EBS)

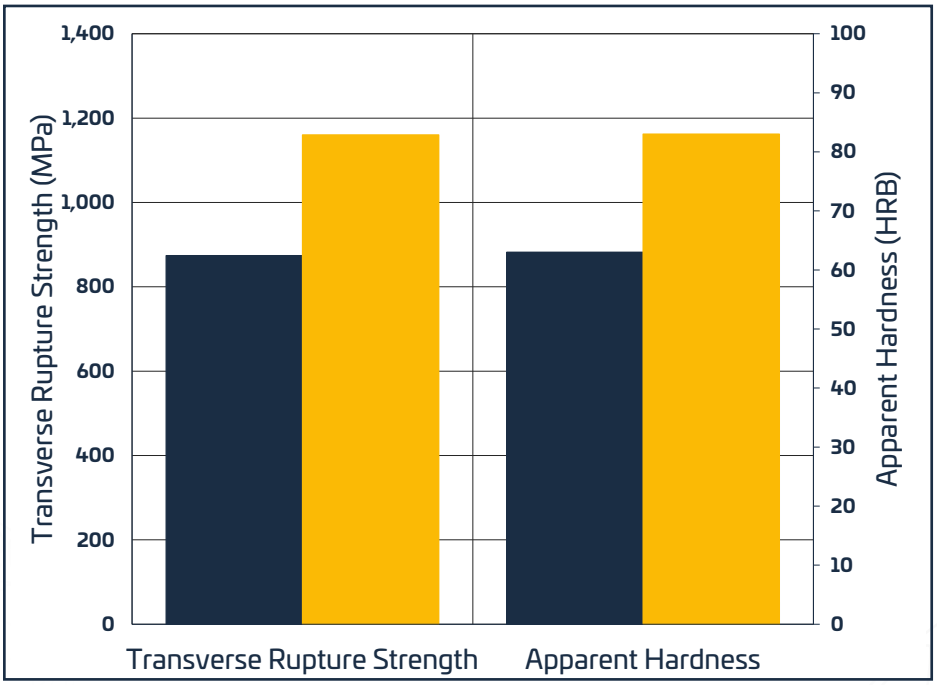
Green Strength



(with 0.75 wt% EBS)

ANCORSTEEL 50 HP

Transverse Rupture Strength Properties

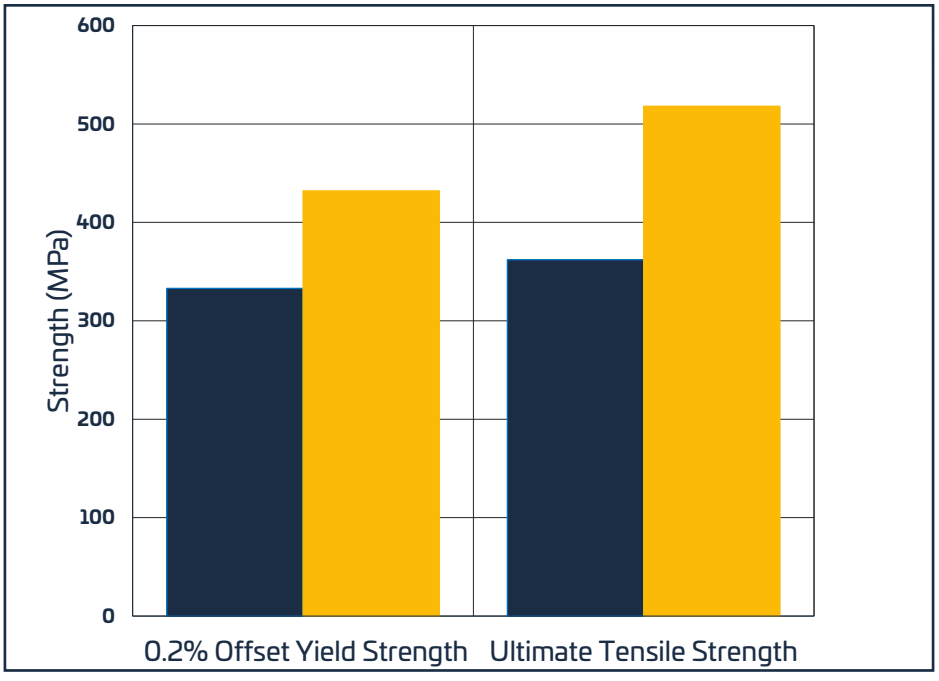


(with 0.6 wt% graphite + 0.75 wt% EBS)

50 HP

50 HP + 2% Nickel

Tensile Properties



(with 0.6 wt% graphite + 0.75 wt% EBS)

All test specimens were compacted to 7.0 g/cm³ and sintered at 1120 °C (2050 °F) in 90N_2-10H_2 atmosphere with conventional cooling.