



Ancorsteel® DWP200

Ancorsteel® DWP200 is a water atomized low apparent density powder for structural applications. The atomizing process imparts a more irregular spongy morphology to the powder particles giving DWP 200 a superior combination of green strength and compressibility to other atomized powders.

Typical Analysis and Properties

Composition (weight %)(w/o)

Fe	Carbon	Si	Oxygen	S
Balance	0.01	0.02	0.15	0.015

Apparent Density

2.55 g/cm³

Flow

32 s/50 g

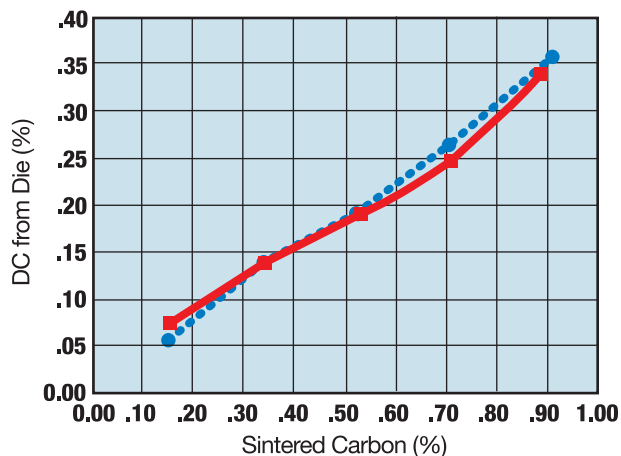
Sieve Distribution (weight %)

Micrometers	+250	-250/+150	-150/+45	-45
U.S. Standard Mesh	(+60)	-60/+100	(-100/+325)	(-325)
	Trace	16	73	11

Effect of Carbon Content on Sintered Properties

0.5% EBS lubricant, compacted to 7.0 g/cm³ green density

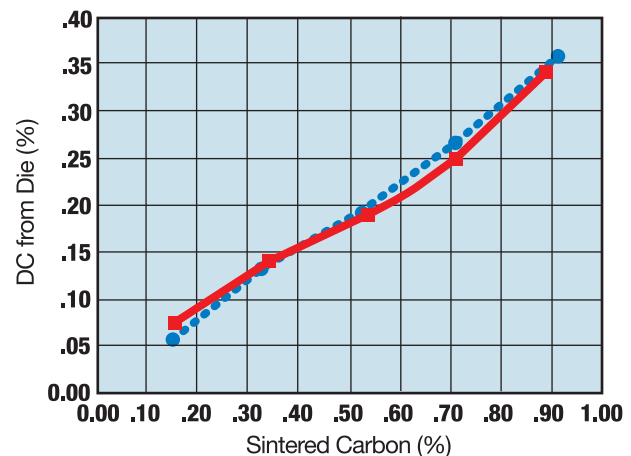
Dimensional Change



Effect of Graphite on Sintered Properties

0.75% EBS, 7.0 g/cm³, Sinter 1120 °C, 90% Hydrogen /10% Hydrogen

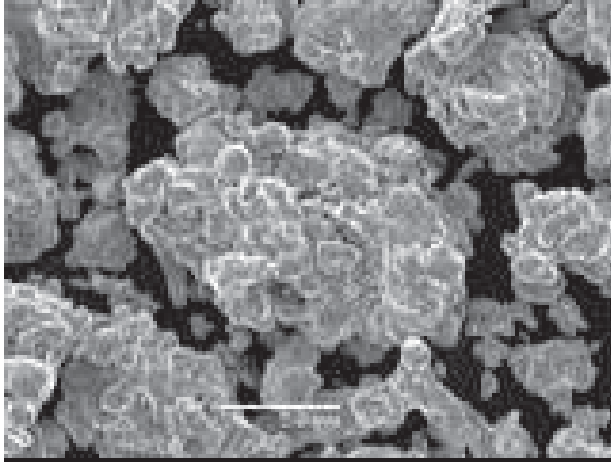
Dimensional Change



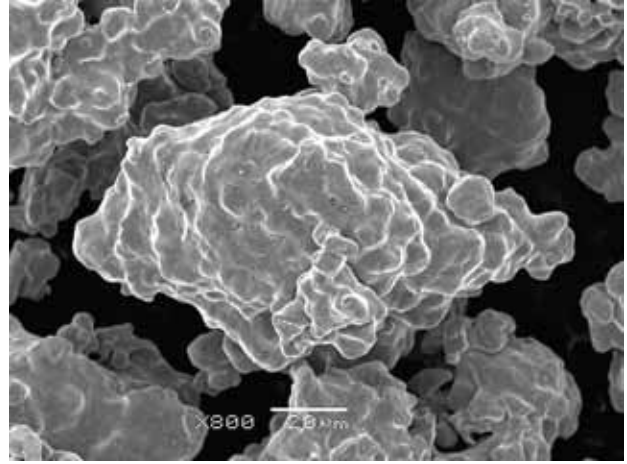
●●●●● Ancorsteel 1000
—■— Ancorsteel DWP200

Ancorsteel® DWP200

SEM Photomicrographs of Iron Powders



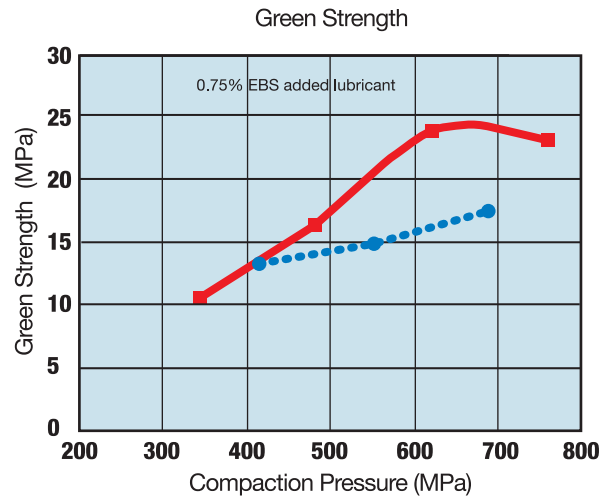
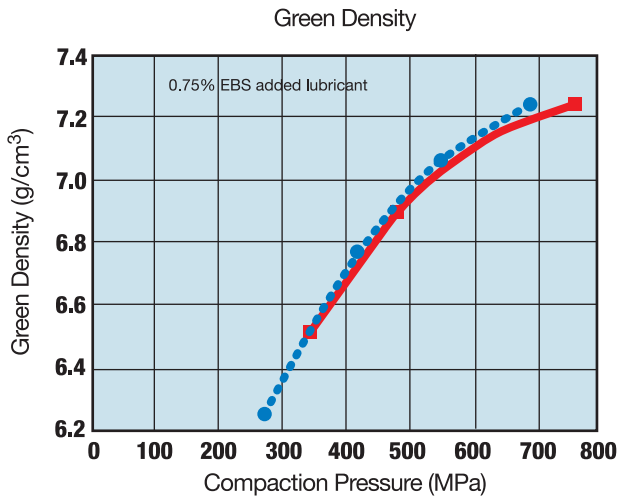
Ancorsteel DWP200



Ancorsteel 1000

The Effects of Compaction Pressure on Green Properties

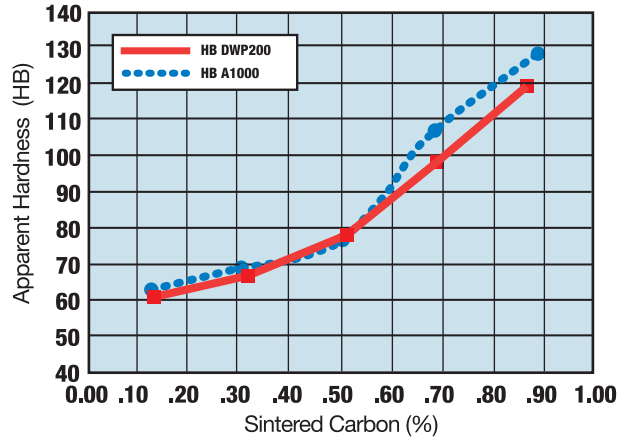
0.75% ethylene bis-stearamide (EBS)



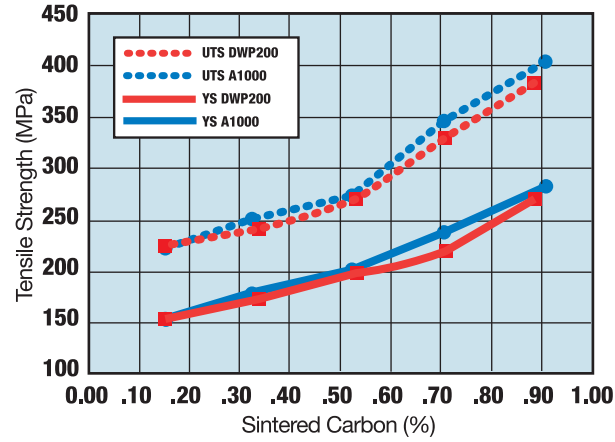
IMPORTANT NOTICE: The data shown are based on laboratory processing standard test specimens. Results may vary from that obtained in production processing.

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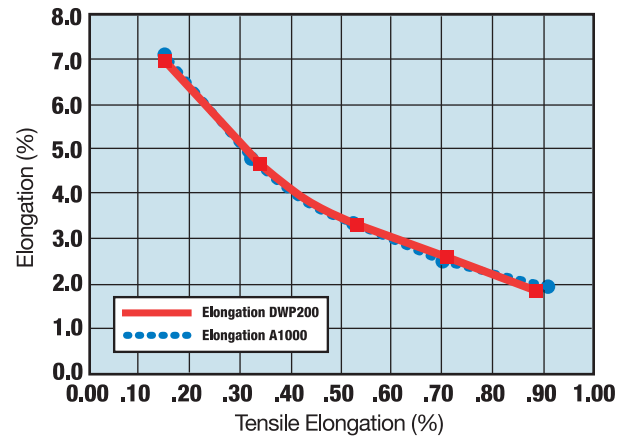
Apparent Hardness



Tensile Strength



Tensile Elongation

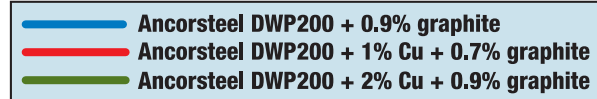
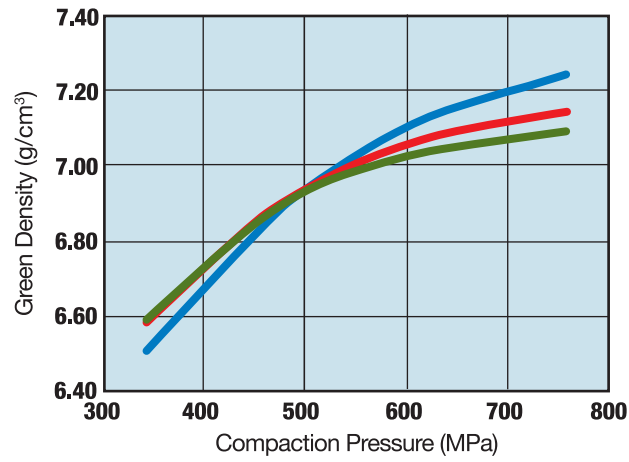


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The Effects of Compaction Pressure on Green Properties

0.75% ethylene bis-stearamide (EBS)

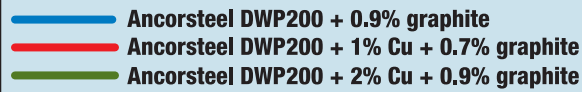
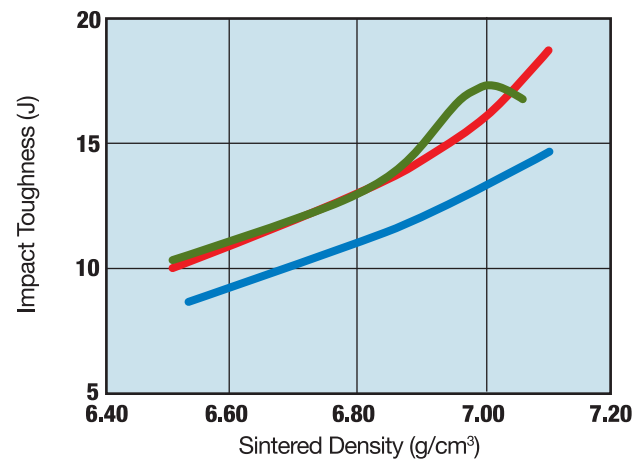
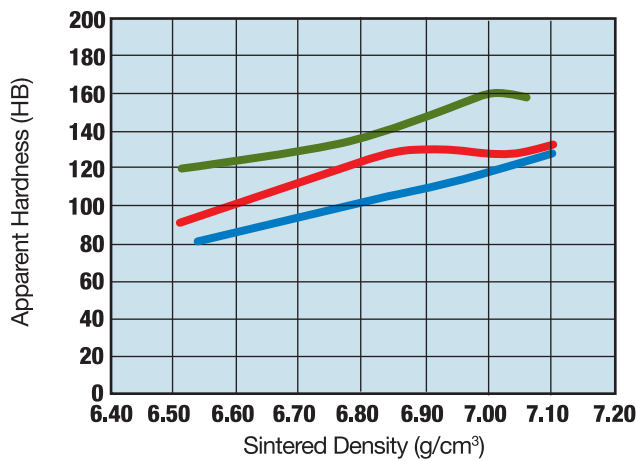
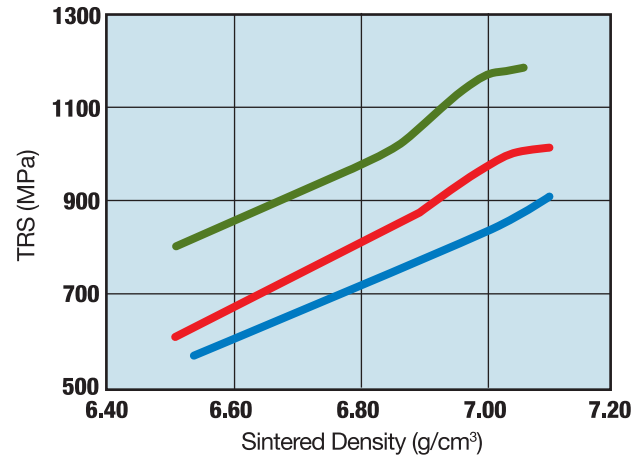
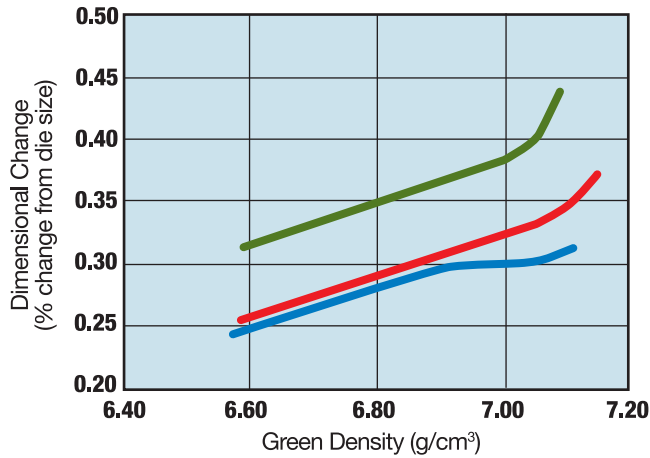


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Sintered Properties

Composition: All mixes contain 0.75 w/o ethylene bis-stearamide (EBS)
Sintered in 90% Nitrogen - 10% Hydrogen atmosphere at 1120 °C for 30 minutes

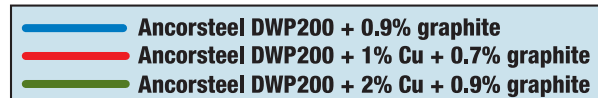
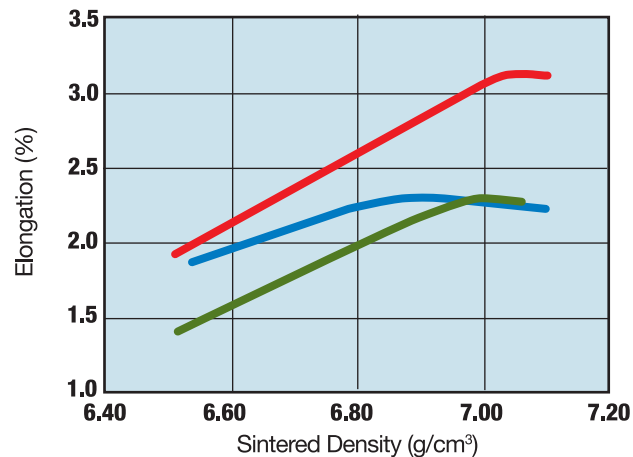
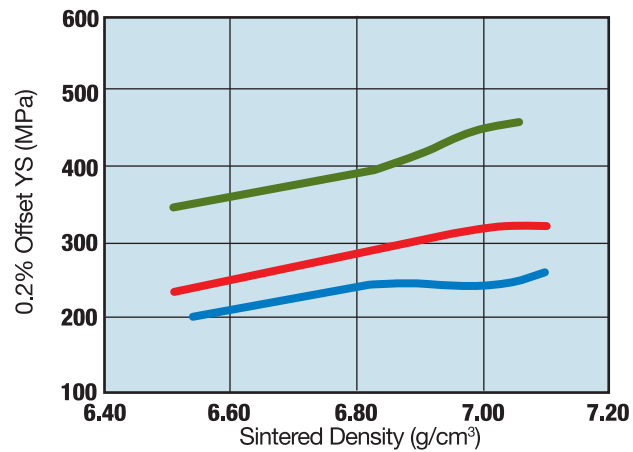
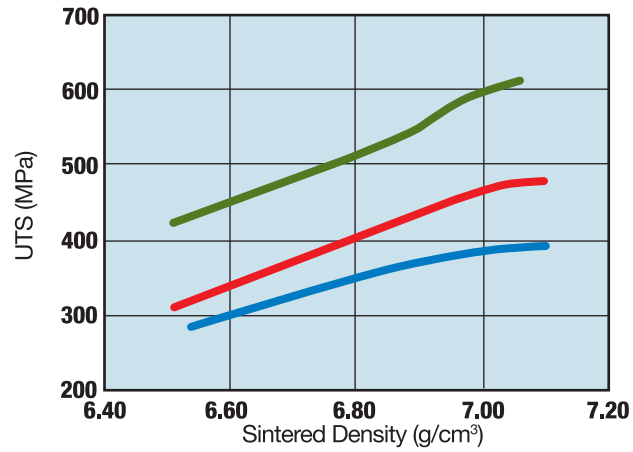


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Ancorsteel® DWP200

Sintered Tensile Properties

Composition: All mixes contain 0.75 w/o ethlene bis-stearamide (EBS)
Sintered in 90% Nitrogen - 10% Hydrogen atmosphere at 1120 °C for 30 minutes



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