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Ancorloy® DH-1

Typical Analysis and Properties

Composition (weight %)

Fe	Mo	Mn	Cu
Balance	1.45	0.15	2.0

Ancorloy DH-1 is a new press-ready, engineered binder-treated premixed ferrous P/M material designed for sinter-hardening. It has comparable performance to a diffusion alloyed product of the same composition. Ancorloy DH-1 is a hybrid alloy based on Ancorsteel 150 HP to which 2 w/o copper has been added during a binder-treated premixing operation, It is designed for use in sinter-hardening applications that do not need the extremely high hardenability of Ancorsteel 737 SH.

Apparent Density
3.10 g/cm ³

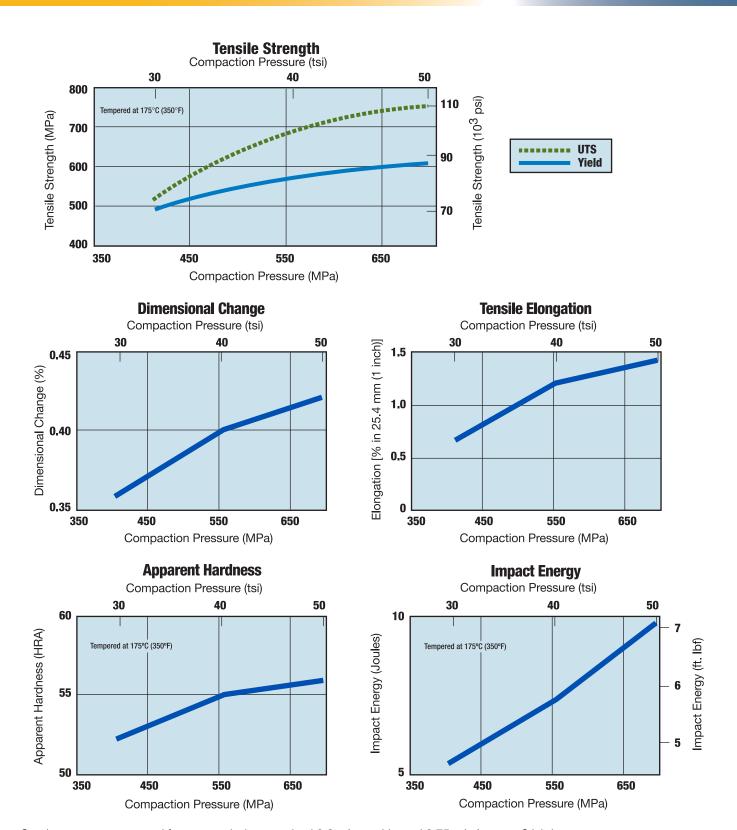
Flow 31 s/50 g

Green and Sintered Density vs Compaction Pressure

Compaction Pressure (tsi) 30 40 50 7.3 0.6 w/o graphite + 0.75 w/o Acrawax C 7.2 7.1 Density (g/cm³) 7.0 6.9 6.8 6.7 6.6 350 450 550 650 Compaction Pressure (MPa)

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Specimens were compacted from a premix that contained 0.6 w/o graphite and 0.75 w/o Acrawax C lubricant. Test specimens were sintered for 30 minutes at 1120°C (2050°F) in a 75 v/o hydrogen; 25 v/o nitrogen atmosphere. All as-sintered test specimens were tempered at 175°C (350°F) prior to mechanical property testing.

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