

Typical Analysis and Properties

Apparent Density

3.1 g/cm³

Flow Rate

29 s/50 g

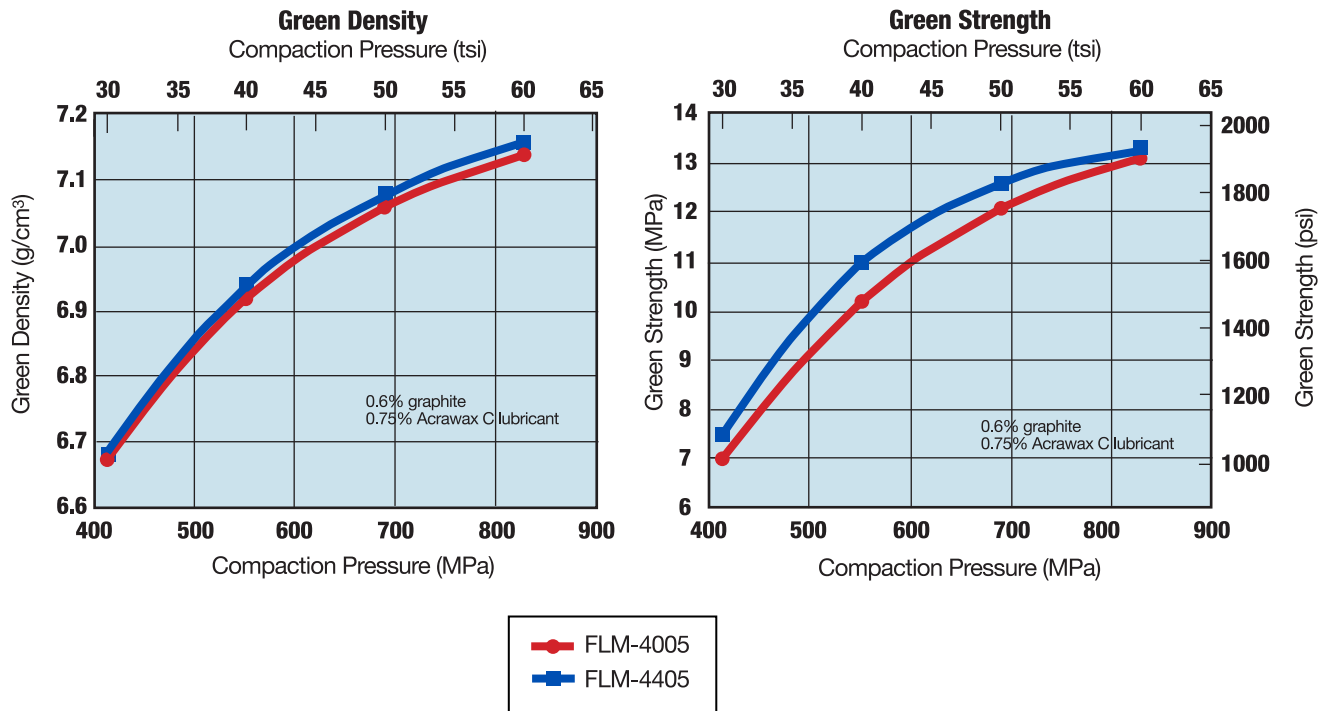
ANCORBOND® FLM Alloys are press-ready, binder-treated Mn-Mo hybrid alloy systems that are Ni and Cu free.

These cost-effective alloys can be sintered at 1120 °C (2050 °F) using N₂-H₂ atmospheres and conventional sintering practices. Excellent hardness and strength can be achieved with accelerated cooling in the sintering furnace, delivering properties comparable with more highly-alloyed, diffusion-alloyed and hybrid steels.

Composition (wt%)

Alloy	Fe	Mn	Mo	O ₂
ANCORBOND FLM-4000	Balance	1.3	0.5	0.1
ANCORBOND FLM-4400	Balance	1.3	0.8	0.1

The Effects of Compaction Pressure on Green Properties



ANCORBOND® FLM Alloys

Effect of Density on Mechanical Properties

Samples sintered at 1120 °C (2050 °F) for 15 minutes at temperature in 90 vol% N₂ - 10 vol% H₂
Average cooling rate 0.7 °C/s (1.3 °F/s) and 1.6 °C/s (2.9 °F/s) from 650 to 315 °C (1200 to 600 °F)
Tempered at 205 °C (400 °F) for 1 hour

