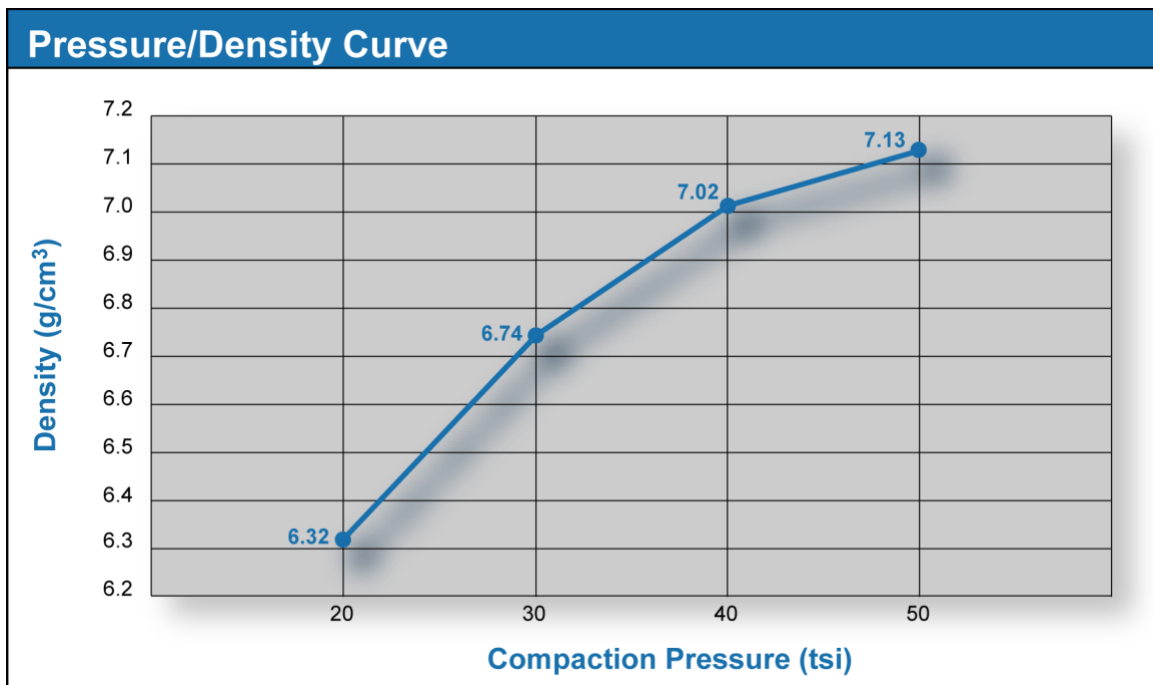


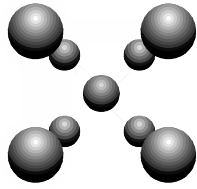
The Rapid Response Premix Facility for the Powdered Metal Industry

F-0005Re Combination Iron Data Sheet

F-0005 RE is a combination blend of remill and virgin irons mixed to meet MPIF F-0005 chemistry requirements. F-0005 RE is a press ready mix containing 0.75% lubricant. It is commonly used to produce net-shape lawn and garden, light industrial and household goods. F-0005 RE may be machined, but some applications may not machine as well as virgin powder mixes. Additions of MnS are common for applications requiring machining.

Typical Blend Chemistry (%)	
Chemistry	Typical
Iron	Balance
Carbon	0.48
Lubricant	0.74
Others	1.14





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F-0005Re Combination Iron Data Sheet

Typical Blend Properties		
	F-0005Re	Virgin Blend ¹
Hall Apparent Density (g/cm ³)	3.15	3.13
Hall Flow Rate (seconds per 50g.)	30.3	31.0

Typical Compacted Properties		
	F-0005Re	Virgin Blend ¹
Compacting Pressure to 6.8 g/cm ³ (tsi)	31.9	30.0
Green Strength at 6.8 g/cm ³ (psi)	1500	1840

Typical Sintered Properties ²		
	F-0005Re	Virgin Blend ¹
Dimensional Change (%)	0.14	0.24
Apparent Hardness (HRb)	45	41
Transverse Rupture Strength (psi)	84,300	78,400

1) A-1000B, 0.60% graphite, 0.75% EBS

2) Compacted to 6.8 g/cm³ and sintered in 90%/10% N₂/H₂