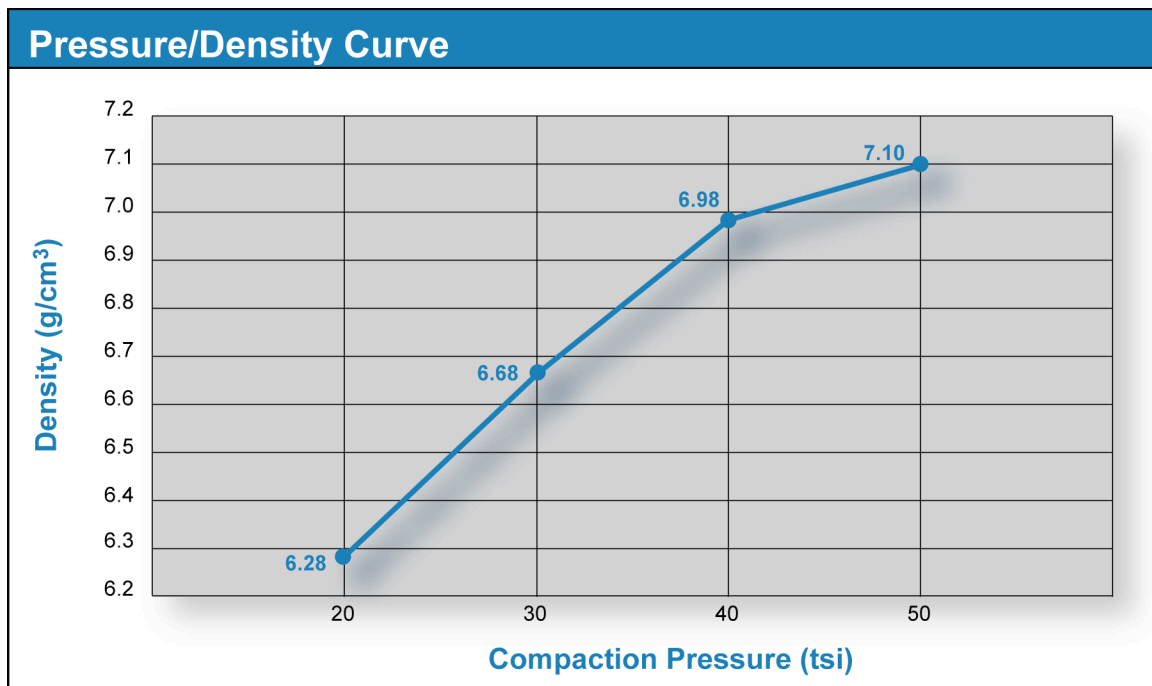


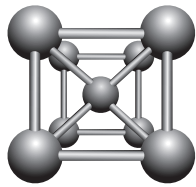
The Rapid Response Premix Facility for the Powdered Metal Industry

ARC-3 (F-0008) Remill Data Sheet

ARC-3 remill is an iron based mix meeting MPlF F-0008 chemistry requirements and produced mainly from recycled green powder metal compacts. ARC-3 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. ARC-3 may be machined, but some applications may not machine as well as new powder mixes. Additions of MnS are common for applications requiring machining.

Typical Blend Chemistry (%)	
Chemistry	Typical
Iron	Balance
Carbon	0.79
Lubricant	0.75
Others	1.50





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ARC-3 (F-0008) Remill Data Sheet

Typical Blend Properties		
	ARC-3	Virgin Blend ¹
Hall Apparent Density (g/cm ³)	3.19	2.87
Hall Flow Rate (seconds per 50g.)	30.5	33.7

Typical Compacted Properties		
	ARC-3	Virgin Blend ¹
Compacting Pressure to 6.8 g/cm ³ (tsi)	33.5	31.5
Green Strength at 6.8 g/cm ³ (psi)	1305	2165

Typical Sintered Properties ²		
	ARC-3	Virgin Blend ¹
Dimensional Change (%)	0.26	0.28
Apparent Hardness (HRb)	69	56
Transverse Rupture Strength (psi)	102,500	79,300

1) A-1000B, 0.80% graphite, 0.75% EBS

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