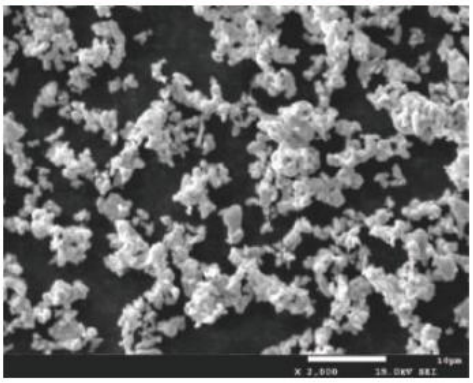
Technical Data Sheet

Ultrafine Powder Series

Grade: UF-P

SEM-VIEW



- Replacing Carbonyl Iron Powder
- High strength / High hardness
- Very high bending strength above 800°C

Chemical Analysis (%)

Fe	≥96.65
O	≤1.04
C	≤0.01
P	≤2.30

Physical Properties

Particle Size Distribution (μm)	D10	1.0-1.5
	D50	2.2-3.2
	D90	4.0-5.0
Apparent Density (g/cm³)		0.9-1.2
Theoretical Density (g/cm³)		7.74

Sintering Physical Properties

Sintering Temp (℃)	Density (%)	Hardness (HRB)	Bending Strength (MPa)
700	94.20	97.4	613.8
750	96.70	105.8	886.3
800	96.40	110.2	1206.8
850	96.70	110.6	1422.6
900	97.30	111.7	1445.2

The Best Sintering Range: 800–900˚C

The Min.Temperature in Use: 800˚C

The Max.Hardness: 112.5HRB

The Max.Bending Strength: 1571MPa

Sintered Shape : 850˚C