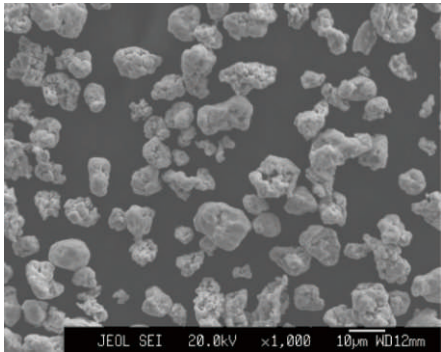


Grade
UHD

SEM-VIEW



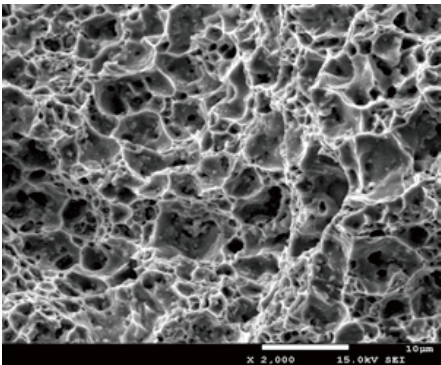
Chemical Analysis (%)

Fe	≥98.85
O	≤0.70
C	≤0.03
N	≤0.01

Physical Properties

Particle Size Distribution (μm)	D10	3.5-5.0
	D50	7.0-9.0
	D90	13.0-25.0
Apparent Density (g/cm³)	1.9-2.5	
Tap Density (g/cm³)	3.2-4.2	

Sintered Shape: 800°C



- For diamond tools, PM / MIM.
- High reactivity at low temperature
- Uniform and fine structure

Sintering Physical Properties

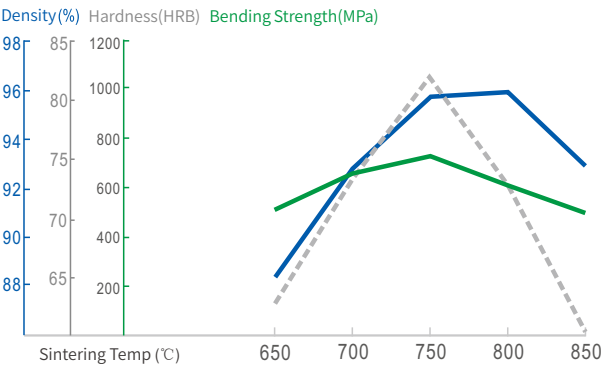
Sintering Temp (°C)	Density (%)	Hardness (HRB)	Bending Strength (MPa)
650	88.47	62.8	517.8
700	92.80	73.3	666.0
750	95.78	81.9	725.1
800	95.89	72.9	606.9
850	92.94	60.4	497.8

The Best Sintering Range: 700–800°C

The Min.Temperature in Use: 700°C

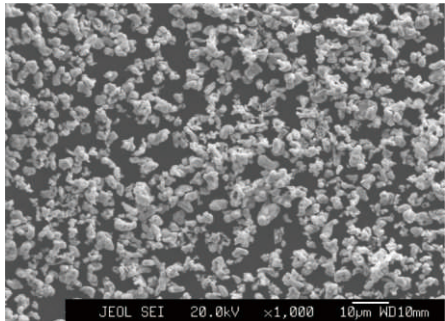
The Max.Hardness: 85HRB

The Max.Bending Strength: 745.1MPa



Grade
UHB

SEM-VIEW



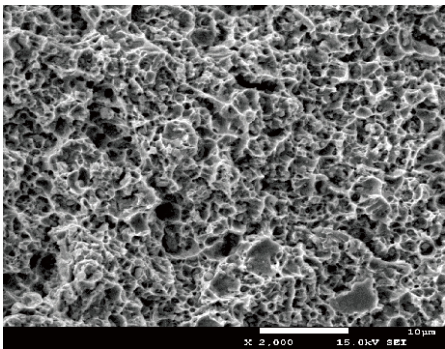
Chemical Analysis (%)

Fe	≥98.5
O	≤0.85
C	≤0.03
N	≤0.01

Physical Properties

Particle Size Distribution (µm)	D10	1.5-2.5
	D50	3.3-4.3
	D90	5.5-7.0
Apparent Density (g/cm³)	0.9-1.8	
Tap Density (g/cm³)	2.4-3.6	

Sintered Shape: 800°C



- Precise control of particle size distribution
- Stable batch production
- High strength / High hardness

Sintering Physical Properties

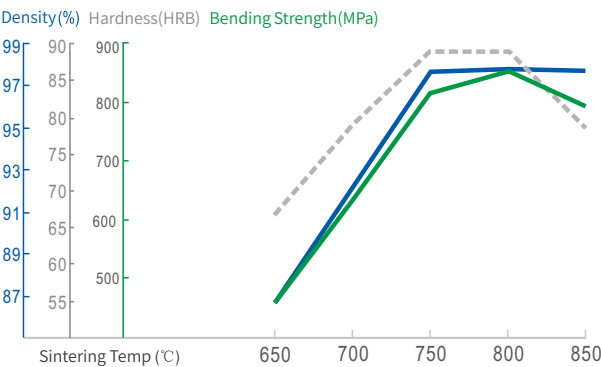
Sintering Temp (°C)	Density (%)	Hardness (HRB)	Bending Strength (MPa)
650	86.71	66.6	457.9
700	92.17	78.8	631.7
750	97.71	88.9	815.8
800	97.79	88.9	852.2
850	97.75	78.4	795.4

The Best Sintering Range: 700-800°C

The Min.Temperature in Use: 700°C

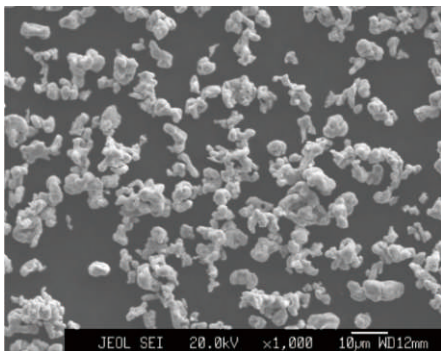
The Max.Hardness: 91.5HRB

The Max.Bending Strength: 885.6MPa



Grade UHA

SEM-VIEW



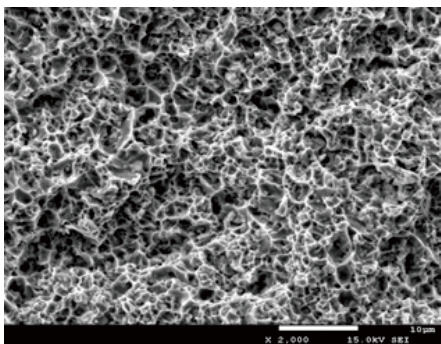
Chemical Analysis (%)

Fe	≥98.8
O	≤0.60
C	≤0.03
N	≤0.01

Physical Properties

Particle Size Distribution (µm)	D10	2.3-3.1
	D50	4.8-5.5
	D90	8.0-10.0
Apparent Density (g/cm³)	1.2-1.6	
Tap Density (g/cm³)	2.3-3.2	

Sintered Shape: 800°C



- High chemical reactivity
- High strength / High hardness
- Improve the wear resistance of the tool

Sintering Physical Properties

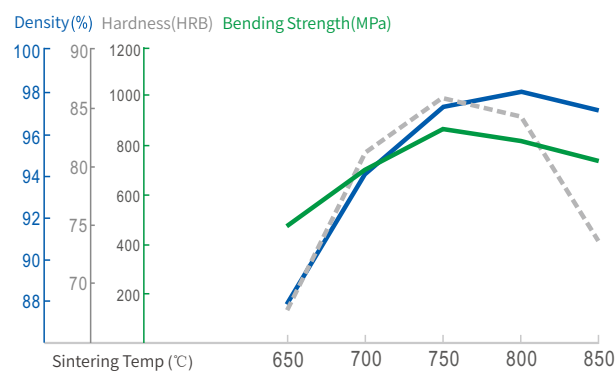
Sintering Temp (°C)	Density (%)	Hardness (HRB)	Bending Strength (MPa)
650	87.86	67.7	477.3
700	93.99	80.9	700.0
750	97.29	85.8	866.7
800	98.02	84.4	824.3
850	97.20	73.6	745.2

The Best Sintering Range: 700–800°C

The Min.Temperature in Use: 700°C

The Max.Hardness: 89HRB

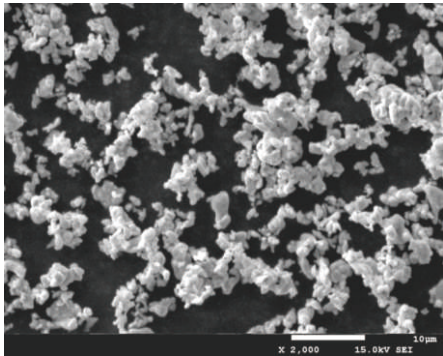
The Max.Bending Strength: 932MPa



Grade

UHF-P

SEM-VIEW



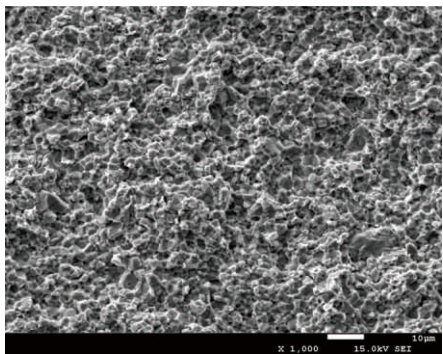
Chemical Analysis (%)

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	

Sintered Shape: 850°C



- Stable batch production
- High strength / High hardness
- Very high bending strength above 800°C

Sintering Physical Properties

Sintering Temp (°C)	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

