

# White Fused Aluminum Oxide 38 ALUNDUM<sup>®</sup> Microgrits



## **Standard-FEPA Sized** Product Code 7307

### **Description**

High purity aluminum oxide fused from Bayer processed alumina. Manufacturing to FEPA F particle size specifications.

### **Applications**

- Lapping Compounds
- Heat Treatment – Setting Sands
- Miniature Blasting of Electronic Circuitry

## **Acid Treated-FEPA Sized** Product Code 7318

### **Description**

An acid treated product with higher purity levels and reduced iron content for more critical applications.

### **Applications**

- Fine Grit Grinding Products
- Wear Resistant Coatings
- Thermal Coatings

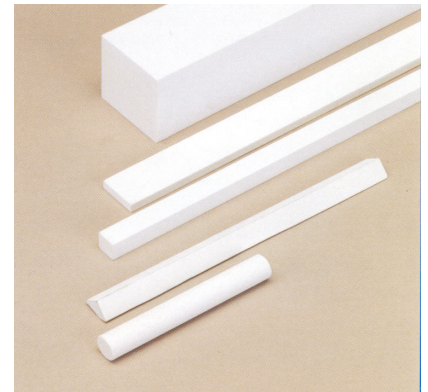
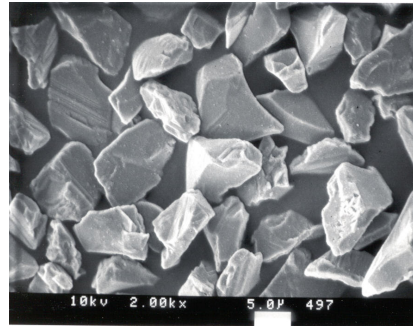
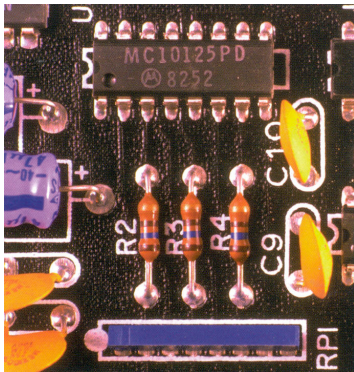
## **High Purity - JIS Sized** Product Code 7325

### **Description**

A 99.85% pure, extremely white fused aluminum oxide for critical applications. JIS sizing requires low fines and coarse particle control.

### **Applications**

- Fine Grit Grinding Products
- Fillers Requiring Extremely High Purity
- Critical Lapping Operations



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## Product Characteristics

## Typical Chemistry

Physical	Code 7307		Code 7318		Code 7325	
Crystal Form: Alpha Alumina	Al <sub>2</sub> O <sub>3</sub>	99.24%	Al <sub>2</sub> O <sub>3</sub>	99.45%	Al <sub>2</sub> O <sub>3</sub>	99.87%
Density: 3.95 gms/cc	Na <sub>2</sub> O	0.60	Na <sub>2</sub> O	0.49	Na <sub>2</sub> O	0.06
Hardness: Knoop 2000, Mohs 9	Fe <sub>2</sub> O <sub>3</sub>	0.09	Fe <sub>2</sub> O <sub>3</sub>	0.02	Fe <sub>2</sub> O <sub>3</sub>	0.01
Melting Point: 2000°C	SiO <sub>2</sub>	0.02	SiO <sub>2</sub>	0.01	SiO <sub>2</sub>	0.01
Loose Pack Density: 1.61-1.87 gms/cc	TiO <sub>2</sub>	0.02	TiO <sub>2</sub>	0.01	TiO <sub>2</sub>	0.01
	CaO	0.02	CaO	0.02	CaO	0.02
	MgO	0.01	MgO	0.01	MgO	0.01

## FEPA F and JIS Particle Sizing Specifications – Microns

FEPA—Standard 42-GB-1984 Part 3-R 1993

Japanese Industrial Standard (JIS) JIS R 6001-1987

F SIZE	D3% Max.	D50%	D94% Min.	JIS SIZE	D0% Max.	D3% Max.	D50%	D94% Min.
240	70	42.5 - 46.5	28	240	127	103	57.0 ± 3.0	40
280	59	35.0 - 38.0	22	280	112	87	48.0 ± 3.0	33
320	49	27.7 - 30.7	16.5	320	98	74	40.0 ± 2.5	27
400	32	16.3 - 18.3	8	360	86	66	35.0 ± 2.0	23
500	25	11.8 - 13.8	5	400	75	58	30.0 ± 2.0	20
600	19	8.3 - 10.3	3	500	63	50	25.0 ± 2.0	16
800	14	5.5 - 7.5	2	600	53	43	20.0 ± 1.5	13
1000	10	3.7 - 5.3	1	700	45	37	17.0 ± 1.3	11
1200	7	2.5 - 3.5	1	800	38	31	14.0 ± 1.0	9.0
				1000	32	27	11.5 ± 1.0	7.0
				1200	27	23	9.5 ± 0.8	5.5
				1500	23	20	8.0 ± 0.6	4.5
				2000	19	17	6.7 ± 0.6	4.0
				2500	16	14	5.5 ± 0.5	3.0
				3000	13	11	4.0 ± 0.5	2.0
				4000	11	8.0	3.0 ± 0.4	1.3

These values apply to measurement by means of a photosedimentometer. Ceramic Materials correlates the above values to a Coulter Multisizer in accordance to the referenced FEPA standard.