



## WHITE FUSED ALUMINA | PEFA F

### INTRODUCTION

It is a high-grade refractory raw material made of high-quality industrial aluminum oxide powder after melting at a high temperature above 2200°C in an electric arc furnace and cooling. It is also widely used in the abrasive industry.

The main crystalline phase of this product is  $\alpha$ -Al<sub>2</sub>O<sub>3</sub>, with white in color. The white corundum produced by dumping electric arc furnace has the advantages of large bulk density and low porosity, so as to improve the volume stability and thermal shock resistance of the material.

### APPLICATION - ABRASIVE MATERIALS

The product can be used for the production of consolidation and coating abrasives, such as floor abrasive resistant sand, ceramic roller, wet or dry jet sand. At the same time, it is also suitable for ultra precision grinding and polishing of some products in crystal and electronic industries.

In addition, the product can also be used to process materials with high hardness and tensile strength, such as quenched steel, alloy steel, high speed steel, high carbon steel, etc. It can also be used as contact media, insulators and precision casting sand.

### CHEMICAL COMPOSITION

White Fused Alumina Abrasive F Sand, Fine Powder					
Chemical Composition	Na <sub>2</sub> O ≤	Al <sub>2</sub> O <sub>3</sub> ≥	SiO <sub>2</sub> ≤	Fe <sub>2</sub> O <sub>3</sub> ≤	Magnetic Object ≤
Common	0.3	99.4	0.1	0.05	0.001
Micro Sodium	0.06	99.7	0.1	0.03	0.001



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### F12 ~ F220 COARSE ABRASIVE PARTICLE SIZE COMPOSITION

Grain Size Marking	Ultra Coarse Grains	Coarse Grains		Medium Grains		Mixed Grains		Fine Grains
	100% Passing The Sieve Number	Failed Sieve Number	Weight ≤%	Failed Sieve Number	Weight ≥ %	Failed Sieve Number	Weight ≥ %	Weight Of Passing Sieve ≤ 3%
F12	7	10	18	12	48	12 14	70	16
F14	8	12	18	14	48	14 16	70	18
F16	10	14	18	16	48	16 18	72	20
F20	12	16	18	18	48	18 20	72	25
F22	14	18	18	20	48	20 25	72	30
F24	16	20	22	25	48	25 30	68	35
F30	18	25	22	30	48	30 35	68	40
F36	20	30	22	35	48	35 40	68	45
F40	25	35	28	40	43	40 45	68	50
F46	30	40	28	45	43	45 50	68	60
F54	35	45	28	50	43	50 60	68	70
F60	40	50	28	60	43	60 70	68	80
F70	45	60	23	70	42	70 80	66	100
F80	50	70	23	80	42	80 100	66	120
F90	60	80	18	100	42	100 120	66	140
F100	70	100	18	120	42	120 140	66	200
F120	80	120	18	140	42	140 170	66	230
F150	100	140	13	170 200	45	170 200 230	70	270
F180	120	170	13	200 230	45	200 230 270	70	270 ≤ 10%
F220	140	200	13	230 270	45	230 270 325	70	325 ≤ 10%



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### F12 ~ F220 COARSE ABRASIVE PHYSICAL INDEX PARAMETERS

Grain Size Marking	Bulk Density g/cm <sup>3</sup>	Magnetic Substance Content %	Cleanliness ≥	Whiteness %
F12		0.0004	98.5	56.4
F14		0.0001	98.5	51.5
F16		0.0001	98.5	60.4
F20	1.78 - 1.85	0.0003	98.2	61.3
F22		0.0003	97.9	69.9
F24	1.78 - 1.85	0.0004	97.4	70.1
F30	1.77 - 1.82	0.0003	97	71.5
F36	1.74 - 1.81	0.0004	96.4	74.8
F40	1.73 - 1.80	0.0005	95.8	76.8
F46	1.71 - 1.83	0.0005	94.9	77.4
F54	1.68 - 1.78	0.0004	94	78.9
F60	1.67 - 1.77	0.0003	92.9	78
F70	1.59 - 1.72	0.0003	91	77.5
F80	1.57 - 1.72	0.0002	89.8	78
F90		0.0001	88	80.4
F100	1.57 - 1.68	0.0001	86.5	81
F120	1.57 - 1.64	0.0002	83.9	81.4
F150	1.53 - 1.64	0.0002	80.8	78.8
F180	1.53 - 1.64	0.0007	77.3	82.8
F220		0.0015	73	82.6



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### GRAIN SIZE COMPOSITION OF F230 ~ F1200 FINE POWDER (SEDIMENT TUBE PARTICLE SIZE ANALYZER)

Grain Size Marking	Ds <sub>3</sub> max μm	Medium Grain Size Ds <sub>50</sub> Value μm	Ds <sub>95</sub> min μm
F230	77	55.7 ± 3.0	38
F240	68	47.5 ± 2.0	32
F280	60	39.9 ± 1.5	25
F320	52	32.8 ± 1.5	19
F360	46	26.7 ± 1.5	14
F400	39	21.4 ± 1.0	10
F500	34	17.1 ± 1.0	7
F600	30	13.7 ± 1.0	4.6
F800	26	11.0 ± 1.0	3.5
F1000	23	9.1 ± 0.8	2.4
F1200	20	7.6 ± 0.5	2.4 (80%)



## WHITE FUSED ALUMINA | PEFA P

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### CHEMICAL COMPOSITION

White Fused Alumina Abrasive P sand, micro powder					
Chemical Composition	$Na_2O \leq$	$Al_2O_3 \geq$	$SiO_2 \leq$	$Fe_2O_3 \leq$	Magnetic Object
Common	0.3	99.4	0.1	0.05	0.001
Micro Sodium	0.06	99.7	0.1	0.03	0.001



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### P12 ~ P220 COARSE ABRASIVE PARTICLE SIZE COMPOSITION

Grain Size Marking	Ultra Coarse Grains			Coarse Grains		Medium Grains		Mixed Grains		Fine Grains	
	100% Passing Sieve No. 1	Fail Sieve No. 2	% $\leq$	Fail Sieve No. 3	Sum of 2, 3 $\geq$ %	Fail Sieve No. 4	Sum of 2, 3, 4 $\geq$ %	Passing Sieve No. 5	Sum of 2, 3, 4, 5 $\geq$ %	Passing Sieve No. 5	% $\leq$
P12	6	8	1	10	14 $\pm$ 4	12	61 $\pm$ 9	14	92	14	8
P16	8	12	3	14	26 $\pm$ 6	16	75 $\pm$ 9	18	96	18	4
P20	12	16	7	18	42 $\pm$ 8	20	86 $\pm$ 6	25	96	25	4
P24	14	18	1	20	14 $\pm$ 4	25	61 $\pm$ 9	30	92	30	8
P30	16	20	1	25	14 $\pm$ 4	30	61 $\pm$ 9	35	92	35	8
P36	18	25	1	30	14 $\pm$ 4	35	61 $\pm$ 9	40	92	40	8
P40	25	35	7	40	42 $\pm$ 8	45	86 $\pm$ 6	50	96	50	4
P50	30	40	3	45	26 $\pm$ 6	50	75 $\pm$ 9	60	96	60	4
P60	35	45	1	5	14 $\pm$ 4	60	61 $\pm$ 9	70	92	70	8
P80	45	60	3	70	26 $\pm$ 6	80	75 $\pm$ 9	100	96	100	4
P100	50	70	1	80	14 $\pm$ 4	100	61 $\pm$ 9	120	92	120	8
P120	70	100	7	120	42 $\pm$ 8	140	86 $\pm$ 6	170	96	170	4
P150	80	120	3	140	26 $\pm$ 6	170	75 $\pm$ 9	200	96	200	4
P180	100	140	2	170	15 $\pm$ 5	200	62 $\pm$ 12	230	90	200	10
P220	120	170	2	200	15 $\pm$ 5	230	62 $\pm$ 12	270	90	270	10



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### GRAIN SIZE COMPOSITION OF FINE POWDER

Grain Size Marking	D <sub>s0</sub> max (μm)	D <sub>s3</sub> max (μm)	Medium Grain Size D <sub>s50</sub> (μm)	D <sub>s95</sub> min (μm)
P240	110	81.7	58.5 ± 2	44.5
P280	101	74	52.2 ± 2.0	39.2
P320	94	66.8	46.2 ± 1.5	34.2
P360	87	60.3	40.5 ± 1.5	29.6
P400	81	53.9	35.0 ± 1.5	25.2
P500	77	48.3	30.2 ± 1.5	21.5
P600	72	43	25.8 ± 1.0	18
P800	67	38.1	21.8 ± 1.0	15.1
P1000	63	33.7	18.3 ± 1.0	12.4
P1200	58	29.7	15.3 ± 1.0	10.2
P1500	58	25.8	12.6 ± 1.0	8.3
P2000	58	22.4	10.3 ± 0.8	6.7
P2500	58	19.3	8.4 ± 0.5	5.4