

TECHNICAL DATA SHEET

WHITE ALUMINUM OXIDE

White Aluminum Oxide was made from the high quality alumina by melting above 2000 in the electric arc furnace and cooling. It is white with the main crystal phase $\alpha\text{-Al}_2\text{O}_3$. The white alumina produced in titling electric arc furnace has the advantage of high bulk density and low porosity and the volume stability and thermal shock resistance can be improved.

PHYSICAL PROPERTIES

Specific Weight	3.96 g/ cm ³
Mohs Hardness	9.0
Crystal form	$\alpha\text{-Al}_2\text{O}_3$
Melting Point	2250°C



1. Used for refractory, casting, foundry and Painting etc

TYPICAL CHEMICAL ANALYSIS [%]

Size	Al ₂ O ₃	Fe ₂ O ₃	MgO	CaO	Na ₂ O	K ₂ O
0-1mm 1-3mm 3-5mm 5-8mm	≥99.5	≤0.06	≤0.02	≤0.02	≤0.30	≤0.02
200F 325F	≥98.5	≤0.20	≤0.05	≤0.05	≤0.40	≤0.05



2. Used for abrasives, blasting, grinding, ceramic, rust removal, surface treatment, floor coating, abrasion resistant layer etc

TYPICAL CHEMICAL ANALYSIS [%]

Al ₂ O ₃	Fe ₂ O ₃	FeO	MgO	CaO	TiO ₂	Na ₂ O	K ₂ O	LOI
99.5	0.04	/	0.01	0.01	/	0.25	0.01	< 0.09

PARTICLE SIZE DISTRIBUTION

F8	+4000um	0	+2800um	≤20%	+2360um	≥45%	+2360+2000um	≥70%	-1700um	≤3%
F10	+3350um	0	+2360um	≤20%	+2000um	≥45%	+2000+1700um	≥70%	-1400um	≤3%
F12	+2800um	0	+2000um	≤20%	+1700um	≥45%	+1700+1400um	≥70%	-1180um	≤3%
F14	+2360um	0	+1700um	≤20%	+1400um	≥45%	+1400+1180um	≥70%	-1000um	≤3%
F16	+2000um	0	+1400um	≤20%	+1180um	≥45%	+1180+1000um	≥70%	-850um	≤3%
F20	+1700um	0	+1180um	≤20%	+1000um	≥45%	+1000+850um	≥70%	-710um	≤3%
F22	+1400um	0	+1000um	≤20%	+850um	≥45%	+850+710um	≥70%	-600um	≤3%
F24	+1180um	0	+850um	≤25%	+710um	≥45%	+710+600um	≥65%	-500um	≤3%
F30	+1000um	0	+710um	≤25%	+600um	≥45%	+600+500um	≥65%	-425um	≤3%



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F36	+850um	0	+600um	≤25%	+500um	≥45%	+500+425um	≥65%	-355um	≤3%
F46	+600um	0	+425um	≤30%	+355um	≥40%	355+300um	≥65%	-250um	≤3%
F54	+500um	0	+355um	≤30%	+300um	≥40%	+300+250um	≥65%	-212um	≤3%
F60	+425um	0	+300um	≤30%	+250um	≥40%	250+212um	≥65%	-180um	≤3%
F70	+355um	0	+250um	≤25%	+212um	≥40%	+212+180um	≥65%	-150um	≤3%
F80	+300um	0	+212um	≤25%	+180um	≥40%	+180+150um	≥65%	-125um	≤3%
F90	+250um	0	+180um	≤20%	+150um	≥40%	+150+125um	≥65%	-106um	≤3%
F100	+212um	0	+150um	≤20%	+125um	≥40%	+125+106um	≥65%	-75um	≤3%
F120	+180um	0	+125um	≤20%	≥40%	≥40%	+106+90um	≥65%	-63um	≤3%
F150	+150um	0	+106um	≤15%	+75um	≥40%	+75+63um	≥65%	-45um	≤3%
F180	+125um	0	+90um	≤15%	+75um	*	+75+63um	≥40%	-53um	*
F220	+106um	0	+75um	≤15%	+63um	*	+63+53um	≥40%	-45um	*



3. Used for Grinding, polishing, lapping, whetstone, polishing pads, ceramic membrane etc

TYPICAL CHEMICAL ANALYSIS [%]

Al ₂ O ₃	Fe ₂ O ₃	SiO ₂	FeO	MgO	CaO	TiO ₂	Na ₂ O	K ₂ O	LOI
99.2-99.6	0.03-0.10	≤0.02	/	≤0.01	≤0.01	/	0.20-0.30	≤0.02	< 0.09

PARTICLE SIZE DISTRIBUTION

HAPTER I (JIS STANDARD)

Size	D ₀ (um)	D ₃ (um)	D ₅₀ (um)	D ₉₄ (um)
#240	≤127	≤103	57.0±3.0	≥40
#280	≤112	≤87	48.0±3.0	≥33
#320	≤98	≤74	40.0±2.5	≥27
#360	≤86	≤66	35.0±2.0	≥23
#400	≤75	≤58	30.0±2.0	≥20
#500	≤63	≤50	25.0±2.0	≥16
#600	≤53	≤41	20.0±1.5	≥13
#700	≤45	≤37	17.0±1.5	≥11
#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



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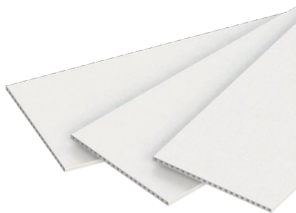
#4000	≤11	≤8.0	3.0±0.4	≥1.8
#6000	≤8.0	≤5.0	2.0±0.4	≥0.8
#8000	≤6.0	≤3.5	1.2±0.3	≥0.6

CHAPTER II (FEPA STANDARD)

Size	D ₃ (um)	D ₅₀ (um)	D ₉₄ (um)
F230	< 82	53.0±3.0	>34
F240	< 70	44.5±2.0	>28
F280	< 59	36.5±1.5	>22
F320	< 49	29.2±1.5	>16.5
F360	< 40	22.8±1.5	>12
F400	< 32	17.3±1.0	>8
F500	< 25	12.8±1.0	>5
F600	< 19	9.3±1.0	>3
F800	< 14	6.5±1.0	>2
F1000	< 10	4.5±0.8	>1
F1200	< 7	3.0±0.5	>1(at 80%)
F1500	< 5	2.0±0.4	>0.8(at 80%)
F2000	< 3.5	1.2±0.3	>0.5(at 80%)

Mainly Applications

- Bonded Abrasives and Coated abrasives
- Creating a matt finish on glass
- Wet and dry blast media, grinding and polishing etc
- Floor/Wall laminates, Wear-resistant
- Thermal spraying/plasma spraying, Processing very hard component
- Catalyst Carrier
- Ceramic and Tiles, Ceramic filter plate, ceramic membrane etc
- Grinding wheels, Cup wheels, Whetstone, polishing pads etc
- Blast-cleaning, surface finishing, Deburring, Roughening metallic surfaces



PACKAGING

