



TECHNICAL DATA SHEET

Revision: October 8, 2019

RockRidge Brown-Fused Aluminum Oxide

Product: Brown-Fused Aluminum Oxide- Blasting Grain

Description: Aluminum Oxide is manufactured in an electric arc furnace that produces an extremely tough, long-lasting grain which is graded to macrogrit exacting standards. It may be repeatedly recirculated and is chemically stable and not affected by alkalis, acids, or harmful atmospheres.

Applications: Aluminum Oxide is suitable for wet or dry surface preparation, cleaning, deburring, and cutting of various metals, ceramics, glass, wood, rubber, plastic, stone, and composite materials.

Typical Physical Characteristics:

Crystal Form	Alpha-Alumina
True Density	3.95 g/cm ³
Hardness	Knoop (100) 2500 kg/mm, Mohs 9.0
Melting Point	2000°C
Color	Brown- Tan

Typical Chemical Analysis:

Mineral	%
Aluminum Oxide	96.69 %
Titanium Dioxide (TiO ₂)	2.52 %
Silicon Dioxide (SiO ₂)	0.44 %
Iron Oxide (Fe ₂ O ₃)	0.10 %
Others (MgO, CaO, Cr ₂ O ₃)	< 0.1

Typical Bulk Density (g/cm³):

Grit	BD	Grit	BD
8	2.03-2.13	60	1.74-1.88
10	1.97-2.12	70	1.72-1.86
12	1.94-2.09	80	1.71-1.85
14	1.92-2.07	90	1.67-1.81
16	1.90-2.05	100	1.64-1.78
20	1.87-2.03	120	1.63-1.77
24	1.85-1.99	150	1.62-1.76
30	1.81-1.95	180	1.60-1.72
36	1.79-1.93	220	1.58-1.72
46	1.77-1.91	240	1.56-1.70
54	1.76-1.90		

Test Methods

Sizing	ANSI B74.12 Table II
Chemistry	ANSI B74.14
Bulk Density	ANSI B74.4

Certifications Available:

ANSI and FEPA
Agency and Mil-specs

For any questions or concerns, please contact RockRidge Abrasives at:
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ANSI Table 2 & FEPA F Specifications

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Grit No.	*Sieve through which 100% must pass	Control *Sieve		Max. of oversize on Control *Sieve (%)	Min. through Control *Sieve and Retained		Cumulative Min. through Control *Sieve and Retained		Max of 3% through *Sieve No.
		No.	Opening (inches)		%	On Sieve No.	%	On Sieve No.	
4	5/16	3.5	0.223	20	40	4	70	4 & 5	6
5	0.266	4	0.187	20	40	5	70	5 & 6	7
6	3.5	5	0.157	20	40	6	70	6 & 7	8
7	4	6	0.132	20	40	7	70	7 & 8	10
8	5	7	0.111	20	45	8	70	8 & 10	12
10	6	8	0.0937	20	45	10	70	10 & 12	14
12	7	10	0.0787	20	45	12	70	12 & 14	16
14	8	12	0.0661	20	45	14	70	14 & 16	18
16	10	14	0.0555	20	45	16	70	16 & 18	20
20	12	16	0.0469	20	45	18	70	18 & 20	25
24	16	20	0.0331	25	45	25	65	25 & 30	35
30	18	25	0.0278	25	45	30	65	30 & 35	40
36	20	30	0.0234	25	45	35	65	35 & 40	45
46	30	40	0.0165	30	40	45	65	45 & 50	60
54	35	45	0.0139	30	40	50	65	50 & 60	70
60	40	50	0.0117	30	40	60	65	60 & 70	80
70	45	60	0.0098	25	40	70	65	70 & 80	100
80	50	70	0.0083	25	40	80	65	80 & 100	120
90	60	80	0.0070	20	40	100	65	100 & 120	140
100	70	100	0.0059	20	40	120	65	120 & 140	200
120	80	120	0.0049	20	40	140	65	140 & 170	230
150	100	140	0.0041	15	40	200	65	200 & 230	325
180	120	170	0.0036	15	40	200 & 230	65	200, 230 & 270	-
220	140	200	0.0029	15	40	230 & 270	65	230, 270 & 325	-
240	170	200	0.0029	5	8	230 & 270	38	230, 270 & 325	-

Table 2: Is the allowable limits for the sizing of abrasive grain for grinding wheel manufacturer and general polishing purposes, as taken from the ANSI B74.12 - 2018 Specifications for Macrogrit abrasive grain sizing.

*Sieves are those from the United States Sieves Series.