

GRAYSTAR LLC

A Manufacturer and Distributor of
Abrasive Materials and Specialty Products

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Technical Data Sheet

Product: Bubble Alumina

Description: Bubble Alumina is produced by fusing special high purity alumina. The melt is atomized with compressed air which leads to the hollow spheres.

Bubble Alumina is hard but extremely friable with respect to its pressure strength. The melting point is approximately 2100°C. Due to its hollow spheres it has a low bulk density and extremely low thermal conductivity. Bubble Alumina is chemically inert.

Application: Due to the above noted properties bubble Alumina is used to form pores in high porosity abrasives and as a media to filtrate aggressive liquids or melts. It can also be used as a bed in the firing process of vitrified grinding wheels.

Typical Chemical Analysis:

Al ₂ O ₃	98.80%	Na ₂ O	0.09%
SiO ₂	0.80%	CaO	0.03%
MgO	0.08%	Fe ₂ O ₃	0.04% (Total Iron)

Bulk Density:

<u>Size</u>	<u>Bulk Density (g/l)</u>
0 – 0.5 mm	800 – 1100
0.5 – 1 mm	650 – 850
0 – 1 mm	700 – 1050
0 – 2 mm	650 – 1000
0 – 3 mm	650 – 950
0 – 5 mm	600 – 900
1 – 2 mm	550 – 800
1 – 3 mm	550 – 800
2 – 3 mm	500 – 750
2 – 5 mm	500 – 750
3 – 5 mm	450 - 700

Product Sizing (Sieve Analysis):

<u>Size</u>	Sieve 1	Sieve 2	Sieve 3	Sieve 4	Sieve 5	Finer
0 – 0.5 mm						
US Sieve	35	45	60	80	120	Pan
% Retained	<15	20-40				<15
0.5 – 1 mm						
US Sieve	18	20	25	35	40	Pan
% Retained	<10	10-30				<10
0 – 1 mm						
US Sieve	18	25	35	50	70	Pan
% Retained	<10	10-30				<25
0 – 2 mm						
US Sieve	10	14	18	35	70	Pan
% Retained	<3	5-25				<15
0 – 3 mm						
US Sieve	6	7	10	18	35	Pan
% Retained	<3	<5				<30
0 – 5 mm						
US Sieve	4	7	10	18	35	Pan
% Retained	<5	5-20				<30
1 – 2 mm						
US Sieve	10	14	18	20	25	Pan
% Retained	<5	30-50				<3
1 – 3 mm						
US Sieve	6	8	12	16	18	Pan
% Retained	<3	5-35				<5
2 – 3 mm						
US Sieve	6	7	8	10	12	Pan
% Retained	<5	<15				<5
2 – 5 mm						
US Sieve	3-1/2	4	5	7	10	Pan
% Retained	<2	<15				<25
3 – 5 mm						
US Sieve	3-1/2	4	5	6	7	Pan
% Retained	<3	<15				<10

Packaging & Shipping:

Warehousing in Bluffton, SC and Niagara Falls, NY
Fiber Drums
Plastic pails, etc. for a surcharge (SC only)