

ProductData



Alumina - Hydrated Grade (Ground Bayer)

C.A.S. Number: 21645-51-2

Applications:

Chemicals - These hydrated aluminas are used extensively in the production of aluminum chemicals such as alum, zeolites, aluminum chlorhydrate, sodium aluminate, aluminum fluoride (anhydrous), sodium aluminum sulfate, aluminum phosphate, alumina-based catalysts, etc.

Fillers - Alumina trihydrate (ATH) is widely used as an

extender and filler in polymeric systems for its fire retardant and smoke suppressant properties. It is used in a wide variety of systems including thermoplastics, thermosets and elastomeric polymers.

Other - ATH is also used in the manufacture of refractories, crystal, glass, vitreous enamel and glazes.

Note: Specific product application recommendations are available on request.

BSI Code	4499	4514	4503	4505	655
TYPICAL CHEMICAL ANALYSIS:					
Al ₂ O ₃ - Aluminum Oxide (%)	64.9	64.9	64.9	64.9	64.9
SiO ₂ - Silica (%)	0.005	0.005	0.005	0.005	0.005
Fe ₂ O ₃ - Ferric Oxide (%)	0.007	0.007	0.007	0.007	0.007
Na ₂ O - Sodium Oxide (total %)	0.3	0.02	0.2	0.2	0.2
Na ₂ O - Sodium Oxide (soluble %)	0.12	0.05	0.05	0.04	0.03
Loss on Ignition @ 550°C (%)	34.6	34.6	34.6	34.6	34.6
Free Moisture @ 105°C (%)	0.8	0.5	0.6	0.5	0.3
TYPICAL PHYSICAL PROPERTIES:					
Retained on 100 mesh (%)	0	0	0	0	0
Retained on 200 mesh (%)	0	0	0	0	0
Retained on 325 mesh (%)	0	0.01	0.01	0.01	0.1
Passing thru 325 mesh (%)	100	99.99	99.99	99.99	99.9
Median Particle Size (micron)	2.0	2.6	3.5	5.0	9.0
Surface Area (m ² /g)	13.0	4 - 6	7.5	6.4	2.0
Specific Gravity	2.42	2.42	2.42	2.42	2.42
Bulk Density - Loose (gm/c ³)	0.35	0.3 - 0.4	0.45	0.74	0.65
Bulk Density - Packed (gm/c ³)	0.5	0.6 - 0.8	0.9	0.99	1.0
Oil Absorption	38	34	32	28	28
TAPPI Brightness	98	93	95	92.5	89

While the data presented in this information sheet reflects the present state of our knowledge and is believed to be accurate and reliable, it is provided without liability as a courtesy only and is to be used and relied upon at the reader's sole risk. Readers should make their own determination as to the suitability of any product for a particular use. We recommend that readers conduct their own product trials before using any particular product. The information provided by us does not absolve the user from the obligation of investigating the possibility of infringement of third parties rights. The recommendations contained herein do not constitute a warranty, either express or implied, as to the fitness or suitability of any product for a particular purpose. For more information and assistance, please contact Technical Services at BSI_regulatory_dept@brenntag.com

Brenntag Specialties, LLC / 1 Cragwood Rd, Suite 302, South Plainfield, NJ 07080 / 800.732.0562

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BSI Code	4511	4518	4517	675	
TYPICAL CHEMICAL ANALYSIS:					
Al ₂ O ₃ - Aluminum Oxide (%)	65.0	64.9	64.9	64.7	
SiO ₂ - Silica (%)	0.005	0.005	0.005	0.007	
Fe ₂ O ₃ - Ferric Oxide (%)	0.006	0.007	0.007	0.007	
Na ₂ O - Sodium Oxide (total %)	0.24	0.2	0.2	0.24	
Na ₂ O - Sodium Oxide (soluble %)	0.08	0.025	0.025	0.018	
Loss on Ignition @ 550°C (%)	36.4	34.6	34.6	34.6	
Free Moisture @ 105°C (%)	0.25	0.2	0.15	0.13	
TYPICAL PHYSICAL PROPERTIES:					
Retained on 200 mesh (%)	-	0	2.0	7.5	
Retained on 325 mesh (%)	-	10	17.5	32.5	
Passing thru 325 mesh (%)	99.995	90	80.5	67.5	
Median Particle Size (micron)	11.0	15.5	18.5	25.0	
Surface Area (m ² /g)	5.0	1.5	1.05 - 1.5	0.9 - 1.1	
Specific Gravity	2.42	2.42	2.42	2.42	
Bulk Density - Loose (gm/c ³)	0.7	0.75	0.8	0.8	
Bulk Density - Packed (gm/c ³)	-	1.2	1.4	1.49	
Moh Hardness	2.5 - 3.5	-	-	-	
Oil Absorption	29	23	21	-	
TAPPI Brightness	-	87	86	-	

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