Activated alumina, Pseudoboehmite & Molecular sieve

Quality and advanced Technology

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About XiangRun

Catalyst & Adsorbent

Why Choose Xiangrun?

Zibo XiangRun Environment Engineering Co., Ltd is a leading adsorbent ,desiccant and catalyst manufacturer in China and world. Our company was established in 2010, located in Zibo, Shandong. We manufacture activated alumina, Potassium permanganate alumina, pseudoboehmite alumina and alumina balls products. And we invest in the biggest molecular sieve factory In China.

Our group offers exceptional expertise in the development of technology. XiangRun can blend the perfect bulk mixture to solve your oxygen and moisture control issues. Our products pass ISO9001:2008 and SGS certificate.

Over the past years, we have established business relationships with many famous companies worldwide, including the China National Petroleum Cooperation, Sinopec, and the Petrochemical Industry Company. Our products are reliable and highly popular with customers from Germany, Britain, Kuwait, Saudi Arabia, Iran, Syria, Jordan, South Korea, New Zealand, Thailand, Indonesia, the Philippines, and many other countries.

Products Type

- * Activated alumina Desiccant * Activated alumina for Hydrogen Peroxide * Activated alumina for sulfur recovery
- * Activated alumina catalyst carrier * Activated alumina ball for defluorination agent
- * Activated alumina for removal of chloride * Activated alumina powder
- * Catalyst
- * Impregnated activated alumina
- * Molecular Sieve 13X * Molecular 5A *Molecular 4A * Molecular 3A * Molecular sieve powder
- * Pseudo boehmite
- * Alumina balls

Learn more about desiccant and more alumina products details , please email or call us. Our expert staff are happy to answer any questions you may have - just call us or e-mail us to ask.

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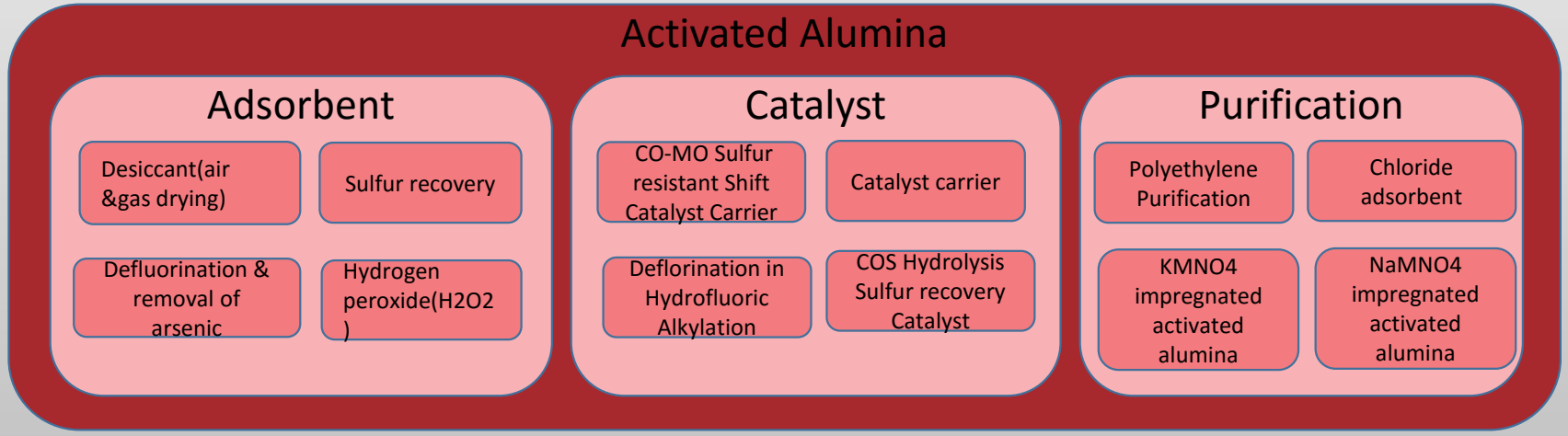
Activated Alumina

Activated alumina is a high-surface-area, highly porous form of aluminum oxide. It can adsorb gases and liquids without changing its form. It works as a desiccant through adsorption. As air passes through the alumina, the water in the air sticks it and becomes trapped and air that passes through an activated alumina filter is dried out. Even if immersed in a liquid,AA won't fall apart or soften.You can restore the original adsorption efficiency of activated alumina by heating it to any temperature from 350° to 600° F (177° to 316° C). When the desiccant is heated as described above, the water stored in it is released. This means that filters with AA can be reused over and over again.

Available Types of Activated Alumina

Activated alumina has several applications, like desiccant, catalyst carrier, sulfur recovery, and others. After adding Different additive, activated alumina is used for catalyst and purification, like dechlorination agent, polyethylene purification And others.



Activated alumina

Technical data for adsorbent

Technical Parameter						
Appearance		white, sphere, odourless, insoluble in water, innocuous				
Application		Adsorbent	defluorination	adsorption H2O2	catalyst carrier	Dehydrating and drying in air separation
Tipo de cristal		x-p	x-p	y	y	x-p
chemical Composition	Al_2O_3 %	≥93	≥93	≥93	≥93	≥93
	Na_2O %	≤0.40	≤0.3	0.3-1.0	≤0.35	≤0.4
LOI	%	6-8	6-8	≤8	≤5	6-8
Bulk density	g/ml	≥0.75	≥0.75	0.65-0.8	0.45-0.95	≥0.75
Surface area	m^2/g	≥320	≥300	250-280	10-380	≥350
Pore Volume	ml/g	≥0.42	≥0.40	0.40-0.46	≥0.45	≥0.42
Satic Adsorption(RH=60%)	%	water adsorption 17-19	Fluorine adsorption 0.12	water adsorption 50	water adsorption 50	water adsorption 17-19
Active	%			56-62		
Attrition Loss	%	≤1.0				≤0.8
Crushing Strength (N/Particle)	ϕ1-2mm	≥50	≥40			≥50
	ϕ2-3mm	≥70	≥80	≥80	≥40	≥70
	ϕ3-5mm	≥160	≥120	≥100	≥60	≥160
	ϕ4-6mm	≥200		≥130	≥80	≥200
	ϕ5-7mm	≥240				≥240
	ϕ6-8mm	≥260				≥260

Our Characteristics

- High bulk density
- Large pore volume
- Large surface area
- Low abrasion
- Low dust

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Impregnated Activated alumina

Technical data for Impregnated activated alumina

Item	Unit	Technical requirement		
Particle size	mm	2-4	3-5	4-6
AL_2O_3	%	≥80	≥80	≥80
$KMnO_4$	%	6-10	6-10	6-12
Bulk density	g/ml	0.85-0.9	0.85-0.9	0.85-0.9
Surface area	㎡/g	≥250	≥250	≥250
Pore Volume	ml/g	≥0.42	≥0.42	≥0.42
Crushing Strength (N/Particle)	N/particle	≥50	≥80	≥100
Pressure Drop @ 50 fpm (0.25 m/s):		1.0 in. of water/ft. of bed	1.0 in. of water/ft. of bed	1.0 in. of water/ft. of bed
H2S Capacity	g/ml	0.85-1.2	0.85-1.2	0.85-1.2

Our Characteristics

- Mixed material technology
- Stable content
- Low moisture
- High crush strenght
- Low dust

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Pseudoboehmite

Pseudoboehmite alumina is also called pseudo boehmite, which is supplied as loosely agglomerated, easily dispersed, spray-dried powders (about 50 microns mean diameter) possessing high-purity, high surface area and low bulk density. Each Versal alumina particle is built from nominal 30 angstrom (3.0 nm) crystallites through a unique acid-base precipitation process using a proprietary reactor configuration that allows control of density, particle morphology, colloidal dispersibility and thermal conversion processes.

Pseudo boehmite is material of catalyst, binder, desiccant and their carrier. It used in nitrogen fertilizer, environmental protection, medicine, petrochemical industry, refractory and other industries , which is the most widely used material of catalyst and catalyst carrier.

Available Types of Pseudoboehmite

Pseudoboehmite

- NH-P-D Normal Pseudoboehmite
- XR-DF-03-LS Low sodium(Soda) Pseudoboehmite
- Large pore(Macroporous) Pseudoboehmite

Pseudoboehmite

Technical data

Item	Unit	Macroporous Pseudoboehmite			Low sodium Pseudoboehmite	Common Pseudoboehmite
		NH-P-DF-1	NH-P-DF-2	NH-P-DF-3	XR-DF-03-LS (NH-P-DF)	NH-P-D
Fe_2O_3	%	≤0.015	≤0.015	≤0.015	≤0.015	≤0.015
Na_2O	%	≤0.05	≤0.05	≤0.05	≤0.1	≤0.30
SiO_2	%	≤0.2	1-2	2-4	≤0.2	≤0.2
Bulk density	g/ml	≤0.70	≤0.70	≤0.70	≤0.70	≤0.70
Surface area	m^2/g	≥320	≥320	≥380	≥260	≥260
Pore Volume	ml/g	0.85-0.95	0.9-1.0	1.0-1.2	≥0.34	≥0.34
Dry basis	%	≥70	≥70	≥70	≥70	≥65
impurity	%	≤3	≤3	≤3	≤3	≤3
Peptizing index	%				≥97	≥97

Our Characteristics

- High peptizing ability
- Large pore volume
- Large surface area

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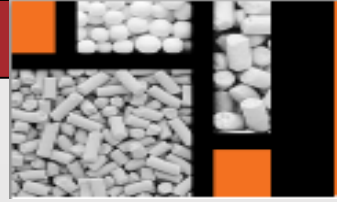
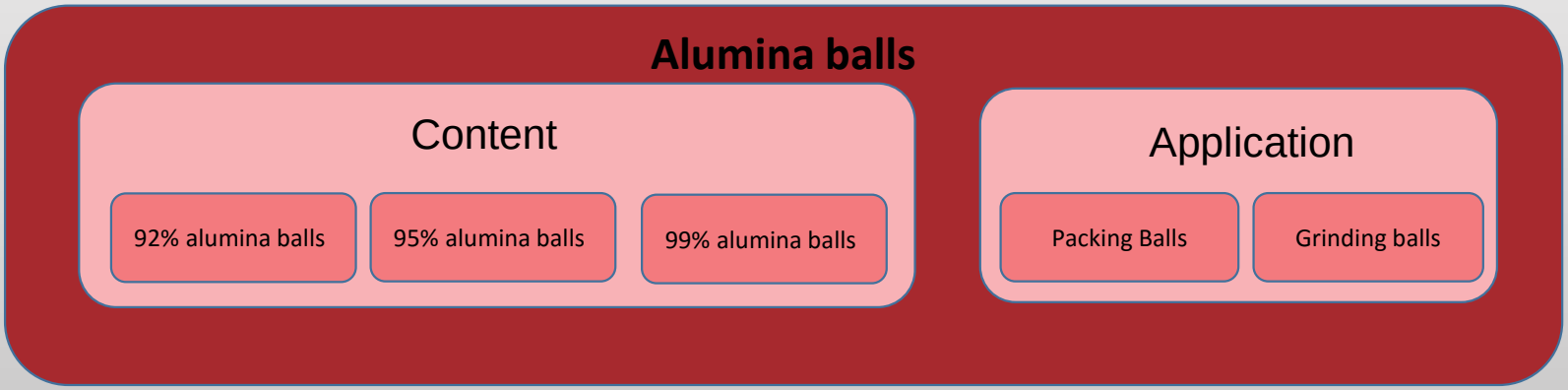


Alumina balls

Our alumina ball(also called alumina ceramic ball) is made of α alumina (α aluminium oxide--the most thermodynamically stable form) by cool isostatic pressing and fired at a very high temperature in the tunnel kiln. Our alumina ball product series include: alumina grinding ball for grinding, alumina packing balls and inert alumina ball/ceramic ball for tower packing, catalyst bed support, column internals and catalyst carrier.

Available Types of Alumina balls



Alumina Balls

Technical data

Performance Index	Grinding balls			Packing balls	
Particle Size	0.5·95mm				
Alumina (%)	92	95	> 92	≥92	≥99
Si2O3	≤5	≤5		≤5	≤5
Fe2O3 (%)	≤0.02	≤0.02	<1%	≤0.23	≤0.04
Hardness(Mosh)	9	9	>6.5	≥9	≥9.5
Water Absorption (%)	≤0.01	≤0.01	<0.5	≤4	≤5
Volume Density (g/cm3)	≥3.60	≥3.70	2.3-2.4	≥3.3	≥3.7
Compression Strength MPa	≥2000	≥2500	-	≥2000	≥2500
Abrasion(‰)	≤0.10	≤0.08	_	≤0.10	≤0.10
Color	White	White	Grey	White	White

Our Characteristics

- high specific gravity and density
- Low abrasion, corrosion resistance and wear resistance
- withstands high temperature

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Molecular Sieves

Molecular sieve usually means zeolite molecular sieve, it is crystalline, highly porous materials, which belongs to the class of aluminosilicates. The crystals of molecular sieve is characterized by a three-dimensional pore system, with pores of precisely defined diameter. Molecular sieve adsorbent,this diameter is in the dimension of the size of molecules such as water,CO_2 and H_2S.

Available Types of Molecular sieve

Molecular sieve

- Pellet & bead
  - 3A molecular sieve
  - 4A molecular sieve
  - 5A molecular sieve
  - 13X molecular sieve
  - PSA molecular sieve
- Powder
  - Synthetic zeolite powder
  - Activated zeolite powder

Technical data- Simple

Property	Unit	Bead		Pellet		Note
		8X12	4X8	1/16"	1/8"	
Static Water Adsorption	%wt	≥ 21.00	≥ 21.00	≥ 20.00	≥ 20.00	RH50% , 25℃
Crush Strength	N	≥ 30.00	≥ 80.00	≥ 30.00	≥ 70.00	Average 25 pcs
Crush Strength	lbs	≥ 7.00	≥ 18.00	≥ 7.00	≥16.00	Average 25 pcs
Bulk Density	g/ml	≥ 0.70	≥ 0.70	≥ 0.65	≥ 0.65	Settled
Bulk Density	lbs/ft^3	≥ 43.00	≥ 43.00	≥ 40.00	≥ 40.00	Settled
Loss on Ignition	%wt	≤ 1.50	≤ 1.50	≤ 1.50	≤ 1.50	575℃,1hr
Loss on Attritioin	%wt	≤ 0.10	≤ 0.10	≤ 0.30	≤ 0.30	
Particle Ratio	%	≥ 97.00	≥ 99.00	~	~	

Our Characteristics

- stable and excellent static and kinetic adsorption capacity
- higher crush strength
- Even size

Package & Loading

Thanks a lot for your visit!

We trust our best quality, best service, and competitive price could let our customers believe in us.

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Production of Sorbents and Catalysts