

# Activated

# Alumina &

Activated alumina, Pseudoboehmite & Molecular sieve

# Pseudoboehmite

# & Molecular sieve

**Quality and advanced Technology**



# 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.



## Molecular sieve

### Types

3A Molecular sieve

4A Molecular sieve

5A Molecular sieve

13X Molecular sieve

PSA Molecular Sieve

Activated zeolite powder

3A

Activated zeolite powder

4A

Activated zeolite powder

5A

Activated zeolite powder

13X

Synthetic zeolite powder

3A

Synthetic zeolite powder

4A

Synthetic zeolite powder

5A

Synthetic zeolite powder

13X





## 1.1 XR-401 Molecular sieve 3A

XR401 Molecular sieve 3A is an adsorbent used for dehydration of different kind of gases and solution.

### Product Information:

XR401 Molecular sieve 3A made by synthetic zeolite powder 3A with selected mineral binder. XR401 Molecular sieve 3A has an effective pore opening of 3Å (0.3nm), it can adsorb molecules which diameter less than 3Å (0.3nm), molecular sieve mostly used for dehydration of different kind of gases and solution.

### Characteristics:

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

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°C
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 <sup>3</sup>	≥ 43.00	≥ 43.00	≥ 40.00	≥ 40.00	Settled
Loss on Ignition	%wt	≤ 1.50	≤ 1.50	≤ 1.50	≤ 1.50	575°C, 1hr
Loss on Attritioin	%wt	≤ 0.10	≤ 0.10	≤ 0.30	≤ 0.30	
Particle Ratio	%	≥ 97.00	≥ 99.00	~	~	

## 1.2.1 XR-402 Molecular sieve 4A

XR402 Molecular sieve 4A is an adsorbent used for dehydration of natural gas in the market.

### Product Information:

**XR402 Molecular sieve 4A** made by synthetic zeolite powder, which has zeolite A crystal structure, with selected mineral binder. 4A Molecular sieves has an effective pore opening of 4Å (0.4nm), so molecules which diameter less than 4Å can be adsorbed by molecular sieve 4A.

### Characteristics:

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

Property	unit	Bead		Pellet		Note
		8x12	4x8	1/16"	1/8"	
Static Water Adsorption	%wt	≥ 21.50	≥ 21.50	≥ 21.50	≥ 21.50	RH50%, 25°C
Crush Strength	N	≥ 30.00	≥ 80.00	≥ 30.00	≥ 70.00	Avg. 25 beads
Crush Strength	lbs	≥ 7.00	≥ 18.00	≥ 7.00	≥ 16.00	Avg. 25 beads
Bulk Density	g/ml	≥ 0.70	≥ 0.70	≥ 0.65	≥ 0.65	Settled
Bulk Density	lbs/ft <sup>3</sup>	≥ 43.00	≥ 43.00	≥ 40.00	≥ 40.00	Settled
Loss on Ignition	%wt	≤ 1.50	≤ 1.50	≤ 1.50	≤ 1.50	575°C, 1hr
Loss on Attrition	%wt	≤ 0.10	≤ 0.10	≤ 0.30	≤ 0.30	~
Particle Ratio	%	≥ 97.00	≥ 99.00	~	~	~



## 3. XR-403 Molecular sieve 5A

XR403 Molecular sieve 5A is an adsorbent used for desulphurization during nature gas purification process. Specially developed molecular sieves can also be used in PSA oxygen generator and PSA hydrogen purification process.

### Information:

XR403 Molecular sieve 5A made by synthetic zeolite powder 5A with selected mineral binder. XR403 Molecular sieve 5A has an effective pore opening of 5Å (0.5nm), it can adsorb molecules which diameter less than 5Å (0.5nm), is mainly used for desulphurization during nature gas purification process.

### Characteristics:

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

Property	Unit	Bead		Pellet		Note
		8x12	4x8	1/16"	1/8"	
Static Water Adsorption	%wt	≥ 21.50	≥ 21.50	≥ 21.50	≥ 21.50	RH50%, 25°C
Crush Strength	N	≥ 30.00	≥ 80.00	≥ 30.00	≥ 70.00	Avg. 25 beads
Crush Strength	lbs	≥ 7.00	≥ 18.00	≥ 7.00	≥ 16.00	Avg. 25 beads
Bulk Density	g/ml	≥ 0.68	≥ 0.68	≥ 0.64	≥ 0.64	Settle
Bulk Density	lbs/ft <sup>3</sup>	≥ 42.00	≥ 42.00	≥ 40.00	≥ 40.00	Settled
Loss on Ignition	%wt	≤ 1.50	≤ 1.50	≤ 1.50	≤ 1.50	575°C, 1hr
Loss on Attrition	%wt	≤ 0.10	≤ 0.10	≤ 0.30	≤ 0.30	~
Particle Ratio	%	≥ 97.00	≥ 99.00	~	~	~

## 4. XR-404 Molecular sieve 13X

XR404 Molecular sieve 13X is an adsorbent mainly used as catalyze carrier, co-adsorption of CO<sub>2</sub>, H<sub>2</sub>O and H<sub>2</sub>S as desiccant for medical and air compressor systems, and can also be adjusted to fit other various industrial applications.

### Product Information:

XR404 molecular sieve 13X are multipurpose, porous, high capacity alkali metal alumino-silicates in the spherical form. Molecular sieve 13X is the sodium form of the Type X crystal structure with pore diameters of approximately 10Å. They can adsorb all molecules that can be adsorbed by 3A, 4A, and 5A molecular sieve. Molecular sieve 13X can also adsorb molecules such as aromatics and branched-chain hydrocarbons, which have large critical diameters. has stable and excellent static and kinetic adsorption capacity and higher crush strength, our molecular sieve 13X has been well acceptable by domestic and abroad cryogenic air separation company.

At the same time, Xiangrun Chemical has developed [specical improved molecular sieve](#) for cryogenic air separation process, which can increase adsorption time and decrease desorption temperature.

### Characteristics

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

Property	Unit	Bead		Pellet		Note
		8x12	4x8	1/16"	1/8"	
Static Water Adsorption	%wt	≥26.00	≥26.00	≥26.00	≥26.00	RH50%, 25°C
Static CO <sub>2</sub> Adsorption	%wt	≥17.50	≥17.50	≥17.50	≥17.50	250mmHg, 25°C
Crush Strength	N	≥30.00	≥80.00	≥30.00	≥70.00	Avg. 25 bead
Crush Strength	lbs	≥7.00	≥18.00	≥7.00	≥16.00	Avg. 25 beads
Bulk Density	g/ml	≥0.62	≥0.62	≥0.62	≥0.62	Settle
Bulk Density	lbs/ft <sup>3</sup>	≥38.00	≥38.00	≥38.00	≥38.00	Settled
Loss on ignition	%wt	≤1.50	≤1.50	≤1.50	≤1.50	575°C, 1hr
Particle Ratio	%	≥97.00	≥99.00	~	~	~

## 5. XR-405 Molecular Sieve for PSA

XR405 Molecular sieve is specially developed regeneration of molecular sieves for oxygen generators by using PSA process. This product has been used by many PSA oxygen generator producers which including international famous one.

### Characteristics:

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

Property	Unit	XR405-A	XR405-B	Note
		8x12	20x50	
N <sub>2</sub> Adsorption Capacity	ml/g	≥8.00	≥8.00	1atm, 25°C
N <sub>2</sub> /O <sub>2</sub> Selectivity	~	≥3.000	≥3.0	1atm, 25°C
Bulk Density	g/ml	≥0.62	≥0.62	Settled
Loss on Ignition	%wt	≤1.00	≤1.00	575°C, 1hr
Crush strength	N	25 ± 3	~	Avg. 25 beads





## 6. XR-406 Activated zeolite powder 3A

**XR406 Activated zeolite power 3A** is calcined synthetic zeolite power, after calcination, most of moisture that it contains has been released, so activated zeolite powder 3A can be used as adsorbent and desiccant directly in various application. Activated zeolite power 3A can work as moisture scavenger in a wide variety of applications. It is largely used to remove moisture from polyurethane polymer systems, 3a zeolite molecular sieves can remove moisture without causing undue problems with shelf-life viscosity etc.

### Characteristics

- stable and excellent static and kinetic adsorption capacity
- no causing shelf-life viscosity

Property	Unit	Activated zeolite powder 3A	Note
Staic Water Adsorption	%wt	≥24.50	RH50%,25°C
Packing Moisture	%wt	≤2.0	550°C, 2hr
Screen Residual	%wt	≤1.0	325 mesh
pH Value	~	≤11.00	1% Solution

## 7. XR-407 Zeolite powder 4A

XR407 Activated zeolite powder is calcined synthetic zeolite powder, after calcination, most of moisture that it contains has been released, so it can be used as adsorbent and desiccant directly in various applications.

4A zeolite molecular sieves powder can work as moisture scavenger in a wide variety of applications. It is largely used to remove moisture from polyurethane polymer systems, activated zeolite powder 4A can remove moisture without causing undue problems with shelf-life viscosity etc.

### Characteristics:

- stable and excellent static and kinetic adsorption capacity
- no causing shelf-life viscosity

Property	Unit	Activated zeolite powder 4A	Note
Static Water Adsorption	%wt	$\geq 26.00$	RH50%, 25°C
Packing Moisture	%wt	$\leq 2.00$	550°C, 2hr
Screen Residual	%wt	$\leq 1.00$	325 Mesh
pH Value	~	$\leq 11.00$	1% Solution

## 8. XR-408 Activated zeolite powder 5A

**XR408 Activated zeolite power 5A** is calcined synthetic zeolite power, after calcination, most of moisture that it contains has been released, so it can be used as adsorbent and desiccant directly in various application. Activated molecular sieve powder 5a can work as moisture scavenger in a wide variety of applications.

### Characteristics:

- stable and excellent static and kinetic adsorption capacity
- no causing shelf-life viscosity

Property	Unit	Activated zeolite powder 5A	Note
Static Water Adsorption	%wt	≥ 26.00	RH50%, 25°C
Packing Moisture	%wt	≤ 2.00	550°C, 2hr
Screen Residual	%wt	≤ 1.00	325 Mesh
pH Value	~	≤ 11.00	1% Solution

# Activated Zeolite Powder

## XR-409 Activated zeolite powder 13X

XR409 Activated zeolite powder 13X is calcined synthetic zeolite powder, after calcination, most of moisture that it contains has been released, so activated zeolite powder 13x can be used as adsorbent and desiccant directly in various applications. Activated zeolite powder 13X can work as moisture scavenger in a wide variety of applications.

### Characteristics:

- stable and excellent static and kinetic adsorption capacity
- no causing shelf-life viscosity

Property	Unit	Activated zeolite powder 13X	Note
Static Water Adsorption	%wt	≥ 30.00	RH50%, 25°C
Packing Moisture	%wt	≤2.00	550°C, 2hr
Screen Residual	%wt	≤1.00	325 Mesh
pH Value	~	≤11.00	1% Solution



## Synthetic zeolite powder

**Synthetic zeolite powders** is manufactured by crystallisation from aluminium hydroxide, sodium hydroxide and sodium silicate. Under carefully controlled conditions, the crystallisation process produces the required sodium aluminosilicate structure.

Synthetic zeolite powder suppliers, The crystals of synthetic zeolite powder can be ion exchanged to adjust the pore size.

Property	Unit	3A-AG	3A-45	3A-60	3A-D-38	3A-D-45	Note
Static Water Adsorption	%wt	≥25.50	≥25.50	≥25.50	≥25.50	≥25.50	RH50%, 25°C
Bulk Density	g/ml	≥0.70	≥0.70	≥0.70	≥0.78	≥0.78	Settled
Exchange Rate	%mol	≥40.00	≥45.00	≥60.00	≥38.00	≥45.00	Flame Photometer
Packing Moisture	%wt	≤21.00	≤21.00	≤21.00	≤21.00	≤21.00	550°C, 2hr
Screen Residue	%wt	≤0.50	≤0.50	≤0.50	≤0.50	≤0.50	325 Mesh
Cl <sup>-</sup>	%wt	≤0.1	≤0.1	≤0.1	≤0.1	≤0.1	Colorimetry
pH Value	~	≤10.5	≤10.5	≤10.5	≤10.5	≤10.5	5% solution

Property	Unit	4A	4A-D	4A-5	Note
Static Water Adsorption	%wt	≥ 27.00	≥ 26.50	≥ 26.50	RH50%, 25°C
Bulk Density	g/ml	≥ 0.70	≥ 0.75	≤ 0.65	Settled
Packing Moisture	%wt	≤ 21.00	≤ 21.00	≤ 21.00	550°C, 2hr
Screen Residue	%wt	≤ 0.50	≤ 0.50	≤ 0.50	325 Mesh
pH Value	~	≤ 11.00	≤ 11.00	≤ 11.00	5% Solution

Property	Unit	13X	13X-D	13X-C	13X-5	Note
Static Water Adsorption	%wt	≥ 32.00	≥ 32.00	≥ 32.00	≥ 32.00	RH50%, 25°C
Bulk Density	g/ml	≥ 0.60	≥ 0.68	≥0.60	≤0.59	Settled
Packing Moisture	%wt	≤ 23.00	≤ 23.00	≤ 23.00	≤ 23.00	550°C, 2hr
Screen Residue	%wt	≤0.50	≤0.50	≤0.50	≤0.50	325 Mesh
pH Value	~	≤11.00	≤11.00	≤11.00	≤11.00	5% solution

Property	Unit	5A-70	5A-90	5A-D-70	5A-D-90	Note
Static Water Adsorption	%wt	≥27.00	≥27.00	≥27.00	≥27.00	RH50%, 25°C
Bulk Density	g/ml	≥0.70	≥0.70	≥0.75	≥0.75	Settled
Exchange Rate	%mol	≥70.00	≥90.00	≥70.00	≥90.00	Titrimetry
Package Moisture	%wt	≤21.00	≤21.00	≤21.00	≤21.00	550°C, 2hr
Screen Residue	%wt	≤0.50	≤0.50	≤0.50	≤0.50	325 Mesh
Cl <sup>-</sup>	%wt	≤0.10	≤0.10	≤0.10	≤0.10	Colorimetry
pH Value	~	≤10.50	≤10.50	≤10.50	≤10.50	5% Solution

# 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.

You could find us as below information:

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