



Pingxiang Baisheng Chemical Packing Co., Ltd



Product Brochure

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Contents

Company Profile

Organizational Structure

Production Equipment

Research and Development

- 1. Catalyst**
- 2. Ceramic ball**
- 3. Molecular Sieves**
- 4. Activated Alumina**
- 5. Environmental Filter**
- 6. Honeycomb Ceramic**
- 7. Ceramic Packing**
- 8. Plastic Packing**
- 9. Metallic Packing**
- 10. Anti-corrosion Packing**
- 11. Tower Internals**
- 12. Ceramic Drag Roller**
- 13. Package Type**

Company Profile

Pingxiang Baisheng Chemical Packing Co., Ltd located at Ceramic Industrial Park of Pingxiang city, sharing beautiful environment, convenient transport, manufacturing tower packing for refinery, petrochemical with advanced production and test equipments as well as strict quality assurance system.

We mainly produce: Catalysts and Tower Packings for Petroleum and Chemical Industries, including molecular Sieve, Activated Alumina, Ceramic, Metal, Plastic Tower Packings, Tower Trays and Internals, Ceramic Balls, Thermal Storage Packings, Environmental-friendly Filtering Material, Grinding Ceramic, etc.

Application field:

Steel, petrochemical, coal chemical, fertilizer, metallurgy, electricity, medicine and environmental protection industries. Application market: South Korea, India, Japan, Denmark, Russia, the United States, Iraq and other countries, and have won much prize from customers.

Our advantages:

1. We have 40 years' production experience for chemical industries.
2. We have R & D team and professor staff.
3. Our manager Mr. Wang Aihuai is one of drafters of industry standard of inert ceramic ball.
4. We have won ISO9001:2000 certificates.
5. OEM service is available.

Our spirit: Credibility, Practicability, Science, Innovation and Development.

You are welcome to join us and share our professional service!



Organizational Structure



Production Equipment



金属填料生产
Production of metallic packing



分子筛生产
Production of molecular sieves



塑料填料生产
Production of Plastic packing



隧道窑炉
Tunnel kiln



陶瓷原料制备
Preparation of Ceramics Materials



搪球
Production of Ceramic Balls



真空炼泥机
Vacuum pugmill



雷蒙磨
Raymond mill



办公楼
Office building

Research and Development



化学分析仪
Chemical analyzer



强度测试
Strength analysis



KNA分析仪
Flame photometer



干燥箱Loft drier



高温试验炉
High-temperature Sample

Catalyst

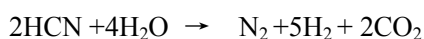
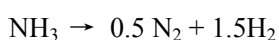
AD-946 Ammonia Decomposition Catalyst

1. Product Description

AD-946 Ammonia Decomposition Catalyst is developed by Baisheng and Chemical Physics Research institute in Dalian of Chinese Academy of Sciences. This product can directly replace Germany G-117 catalyst with unique performance of great catalytic activity, high mechanical strength, and excellent thermal and coking resistance. It is used in the ammonia decomposing furnace to decompose the NH₃ and HCN etc into N₂, H₂ and CO₂, and so as to effectively purify the coke-oven gas for the sake of environmental protection and prevent the equipment from corrosion.

2. Technical Feature

(1) Chemical reaction



(2) Technical Indexes

Item	Type		
	AD-946	AD-946 A	AD-946 B
Color	Grey and Black		
Shape	Cylinder	Rasching Ring	Honeycomb
Size, mm	Φ18×20	Φ18×20×5	Φ18×20
Ni Content,%	≥6	≥6	≥6
Bulk density, g/ml	1.4 ~ 1.6	1.3 ~ 1.5	1.2 ~1.5
Surface area,m ² /g	1 ~ 3	2 ~ 4	2 ~ 5
Crushing strength,N	≥1000	≥1000	≥1100
Thermal resistance, °C	≥1350	≥1350	≥1350

3. Normal Operating Conditions

Operating Temperature	1000~1200°C
Maximum Teperature	1350°C
Pressure	0.1~1MPa
Space Velocity	1000~3000 h ⁻¹
NH3 Decomposing Rate	≧95%

4. Product image



Sulfur Recovery Catalyst

1. Product Description

PSR Sulfur Recovery Catalyst is used to treat with the acid gases containing H₂S for the sake of recovery sulfur element and environmental protection in oil refinery, chemical factory, Iron & steel plant and natural gas treatment processes. The conversion of sulfur can reach to 65~75% in a ordinary burner, for two stages Claus processes can reach 92~95%, for three Claus reactors can be higher than 98%.

2. Technical Specification

Type Item	PSR-1	PSR-21	PSR-31	PSR-41	PSR-51
Size & Shape,mm	Φ4-6 Sphere	Φ4-6 Sphere	Φ4x5-15 Bar	Φ4-6 Sphere	Φ3x4-15 Trifolium
Color	White	White	White	Brown	Blue
Chemical composition,%	Al ₂ O ₃ ≥93 Na ₂ O≤0.3	Al ₂ O ₃ ≥85 TiO ₂ 3-6	TiO ₂ ≥85	Al ₂ O ₃ ≥80 FeO≥6	CoO 2.5-3.0 MoO ₃ 10-11
Bulk density, g/ml	0.65-0.72	0.72-0.75	0.85-1.0	0.70-0.82	0.65-0.80
Surface area,m ² /g	≥300	≥260	≥100	≥260	≥200
Pore volume, ml/g	≥0.4	≥0.4			
Crushing strength, N	≥150	≥140	≥100	≥140	≥160
Abrasion loss,%	≤0.3	≤0.3	≤1	≤0.3	≤1.0
Major function	Universal catalyst for sulfur recovery in acid gas	With high hydrolysis and conversion of COS and CS ₂	Catlyst with high sulfate resistance and conversion	Catlyst with protection of oxygen leakage	Catlyst for Tail gas hydrotreatment

3. Product photo



Methanol Conversion Catalyst

1. Product Description

☉ ZH107 Catalyst

ZH107 Catalyst is sintered conversion catalyst with active component of Ni. This catalyst is suitable for the steam reforming methanol preparation device, the coke oven gas, natural gas, oil associated gas and light oil as the raw material of gaseous hydrocarbons with plus air, oxygen or pure oxygen.

☉ BH108 Thermal Protection Catalyst

BH108 Thermal Protection Catalyst is heat resistant thermal catalyst which is made from sintered MgO carried with small amount of nickel as the active component. Matching it with ZH107 catalyst for thermal protection at the top of the steam reformer of air, oxygen or pure oxygen. The use of performance is adapted to specific operating conditions and environment of the top reformer, and can better resistant high temperature and air flow erosion.

2. Technical Specification

Color	Dark gray
Shape	Single hole or Multi-holes Cylinder
Radial compressive strength	$\geq 400\text{N/pc}$
Service temperature	650°C-1400°C
Outlet residual of CH ₄	$\leq 0.37\%$

3. Product image



Guard catalyst for environmental protecting

1. Product Description

This product is kind of catalyst covering & bearing catalyst agent, being made using high purity alumina as main material and special composition. Special structure with slot opening around increasing its surface area and void fraction beside enough crushing strength. Having 40-50% void fraction, this product can effectively filter impurity of oil such as particle, colloid, asphaltene, heavy metal etc. Part of impurity can be strained out after raw materials filter, while some particle and ferric ion smaller than 25um still exist in oil. Filling guard catalyst in top of reactor can filter all of above impurity and protect catalyst from coking, as well as extend reactor's cycle process.



Catalyst with different specs can be used according to impurity content and size. Some other activity material like Mo, Ni and Co can be added depends on clients demand, in order to protect catalyst from coking or poisoning.

Application in petrochemical industries shows that this catalyst also increase the flow area of oil, reduce the system drop pressure under 1 Mpa, improve the handling capacity of the device by 26. 5%, and increase the infiltration rate of catalytic diesel up to 37%-40%.

2. Chemical & Physical property:

Item \ Model	BS-I-1	BS-II-1	BS-III-1
Chemical composition,%	Al ₂ O ₃ : 30-90		
Water absorption,%	<3		
Porous diameter,μm	0.5-35	40-100	110-1000
Porous ratio,%	30-40	25-35	20-30
Penetrability m ³ .cm/m ² .h.10Pa	0.2-0.8	1-6	7-30
Anti-acid, %	≥98	≥98	≥97
Anti-alkali,%	≥85	≥85	≥82
Spalling resistance, TC	-20-800	-20-800	-20-800
Crushing strength,N/PC	100-20000 Depend on specification and size		
Bulk density (g/mL)	1.2-1.3	1.1-1.2	1.1-1.25
Specific Pore Volume (ml/g)	0.5-0.6		
Active composition	NiO·MoO ₃	NiO·WO ₃	CoO·MoO ₃

3. Size

Size,mm	Φ 6x4	Φ 8x6	Φ 10x7	Φ 13x9	Φ 16x12	Φ 20x15	Φ 25x18	Φ 35x20
Hole Diameter,mm	1.2	1.5	2.0	2.5	3.0	4.0	5.0	6.0
Concave diameter,mm	1.5±0.5	2.0±0.5	2.5±0.5	2.5±0.5	13.0±0.5	4.0±0.5	5.0±0.5	6.0±0.5

Pre-hydrogenation Catalyst

1. Product Description

Pre-hydrogenation Catalyst is used in crude benzene hydrogenation two-stage fixed-bed pre-hydrogenation reactor at low temperature, for removing carbon disulfide, styrene and olefins and other unsaturated compounds and other substances.

2. Technical Specification

Item	Value	
Color	Light yellow	
shape	φ2.5mm Bar	φ2-3mm Sphere
Crushing strength	≥25N/cm	≥50N/pc
Surface area	≥200m ² /g	
Pore volume	≥0.5ml/g	
Bulk density	≥0.7g/ml	
Water adsorption	≥50%	
Service temperature	185°C-230°C	

3. Product image



Main hydrogenation Catalyst

1. Product Description

Main hydrogenation Catalyst is used in crude benzene hydrogenation two-stage fixed bed main reactor at low temperature, for further hydrogenate the materials which after the pre-reactor, thiophene sulfides, oxides and nitrogen converse to hydrocarbons, hydrogen sulfide, water and ammonia and other ingredients.

2. Technical Specification

Item	Value	
Color	Light blue	
shape	φ2.5mm Bar	φ2-3mm Sphere
Crushing strength	≥25N/cm	≥50N/pc
Surface area	≥200m ² /g	
Pore volume	≥0.5ml/g	
Bulk density	≥0.7g/ml	
Water adsorption	≥50%	
Service temperature	270°C-350°C	

3. Product image



Hydrogenation conversion Catalyst

1. Product Description

Hydrogen is one of the basic raw material of oil refining and synthetic ammonia industry, at domestic and overseas have widespread use of the hydrocarbons into hydrogen, raw material steam legal system for natural gas, light oil and oil refinery by product of refinery gas, but these materials contains high of organic sulfur, usually higher as high as approximately 100 to 200 PPM, it can not use desulfurizer eliminate, such as into the next working procedure so that lose the activity in the steam conversion, transformation and the methane conversion agent produce harm. At the same time refinery gas also contains some olefins, these olefins conversion into steam as furnace steam reforming catalyst carbon and damage the furnace pipe. In order to make conversation the organic sulfur and olefins conversion for hydrogenation, catalytic hydrogenation can effectively reduce the hydrocarbon organic sulfur and alkene, cooperate to use ZnO desulfurizer, can satisfy the requirements of raw materials into steam.

Hydrogenation Conversion Catalyst, using Al₂O₃/TiO₂ with large specific surface area and big pore volume as compound carrier, is made of activated composition as Co, Mo and a little auxiliary agent. It has good abrasion-resistance, high hydrogenation conversion activity, and good low-temperature activity and has double roles of hydro-desulfurization and Olefins saturation, and it can be widely applied in the process of hydro-purification of hydrocarbon raw materials.

2. Technical Specification

Item	Value
Shape	Φ3×4-10mm Trifolium
Surface area	180-200m ² /g
Thiofuran conversion	≥80%
Service temperature	220-400℃
Pore volume	0.4-0.5ml/g
Bulk density	0.65-0.85kg/l
Crushing strength	≥82N/cm ²
Product Type	BS-201 BS-202

3. Product image



HNMCC-A Catalyst

1. Product Description

The catalyst is produced by using honeycomb ceramics material as the supporter, special material as the coat and noble metals (Palladium and platinum) as the active component, which possesses the advantages of high catalytic activity, high thermal stability, long life, low pressure drop and high intensity et al. The performance of the catalyst is comparable to that of roughly identical foreign products. The catalyst can be widely applied in the purification and deodorization of organic waste gas, which releases from chemical industry, manufacture of oil paint, enameled wire, metal printing, multicolor printing and leather, pharmaceutical industry and municipal sewage. The catalyst can be especially applied in the treatment of the waste gas from acrylonitrile production device.

2. Technical Specification

Item	Index	unit
size	100×100×40,50×50×50	mm
Surface area	15~25	m ² /g
Crushing strength	≥10	MPa
Apparent density	0.65~0.75	g/mL

3. Technological Condition

Item	Index	unit
Application temperature of catalyst	≤600	℃
Operating pressure	≤0.5	MPa
Gas airspeed	15000~25000	h-1
Residual oxygen content (v/v)	≥0.5	%

4. Product image



BSMS-309 Methanol Synthesis Catalyst

1. Applications and Characteristics

BSMS-309 Methanol Synthesis Catalyst are widely used in coal, oil and natural gas with gas and oil as raw material of low-pressure methanol synthesis reaction device (low pressure tubular column pipe and cold shock type synthesis tower, cold tube type synthesis tower etc other types of reactors). This product has the catalytic activity of low temperature, good thermal stability, selectivity high characteristic, the technical indexes have reached the international advanced level.

2. Chemical Compositions

This type of catalyst mainly composed of CuO, ZnO, Al₂O₃ and other special additives.

3. Physical Properties

Item	Value
Shape	cylinders with black luster
Size, mm	5×(4~5) or 6×(3~4)
Bulk Density, kg/m ³	1300-1500
Crush Strength, N/cm	200
Surface Area, m ² /g	80-100

4. Technological Conditions

Item	Value
Operation Temperature, °C	190-300
Best Working Temperature, °C	210-260
Operation Pressure, Mpa	3.0-15.0
Space Velocity, h ⁻¹	4000-20000

5. Standard of Quality

Beginning Activated: space time yield of methanol \geq 1.30 g/ml.h.

Thermal stability: 350°C, after high temperature heat-resistant, space time yield of methanol \geq 1.00g/ml.h.

6. Product image



WNZS-1 Hydrotreating Catalyst

1. Description

Hydrotreating Catalyst takes promoted alumina as carrier material with such metal components and auxiliaries as tungsten and nickel, featuring good activity of HDS, HDN aromatics saturation and hydrodecolloid in low pressure, and having high resistance to compression and attrition. It can be reused after regeneration. This catalyst contains no easily lapsed active components, so it won't corrode equipment and have good activity stability.

2. Application

Hydrotreating Catalyst can be used in the hydrotreating of poor secondary processed gasoline and diesel. Under medium and low operating pressure, catalyst WNZS-1 does very well in hydrotreating all sorts of FCC diesel and coked diesel to produce high quality diesel oil with low sulphur and low aromatics.

3. Physical-chemical properties

Item	Target
Appearance	Trilobe extrudates
Particle size, mm	Φ1.6*5-15
Crushing strength, N/cm	Min 150
Surface area, m ² /g	Min 120
Pore volume, ml/g	Min 0.30
Chemical composition	WO ₃ -NiO-promoter-alumina
Packing density, kg/l	0.80 to 0.85

4. Product image



Ceramic Ball

Inert Alumina Ceramic Ball

1. Product Description

Inert ceramic balls have the advantages of high strength, high stabilities to chemical and thermal circumstances. It can resistant to acid alkali, salt and all organic solvents. Being used as a support and a covering material in reactors in oil refinery, chemical, fertilizer, natural gas and environment protection industries, it can improve the distribution of gas and liquid, protect the catalyst from shocking by the rushing fluids.

2. Technical Specification

Item \ Type		Feldspar	Feldspar-Mullite	Mullite	Mullite-Corundum	Corundum
		Chemical composition, %	Al ₂ O ₃	20-30	30-45	45-70
	Al ₂ O ₃ +SiO ₂	≥90				
	Fe ₂ O ₃	≤1				
Water absorption %		≤5				
Acid resistance, %		≥98				
Alkali resistance, %		≥80	≥82	≥85	≥90	≥95
Thermal resistance, °C		≥1300	≥1400	≥1500	≥1600	≥1700
Crushing Strength N/pc	Φ3	≥400	≥420	≥440	≥480	≥500
	Φ6	≥480	≥520	≥600	≥620	≥650
	Φ8	≥600	≥700	≥800	≥900	≥1000
	Φ10	≥1000	≥1100	≥1300	≥1500	≥1800
	Φ13	≥1500	≥1600	≥1800	≥2300	≥2600
	Φ16	≥1800	≥2000	≥2300	≥2800	≥3200
	Φ20	≥2500	≥2800	≥3200	≥3600	≥4000
	Φ25	≥3000	≥3200	≥3500	≥4000	≥4500
	Φ30	≥4000	≥4500	≥5000	≥5500	≥6000
	Φ38	≥6000	≥6500	≥7000	≥8500	≥10000
	Φ50	≥8000	≥8500	≥9000	≥10000	≥12000
Φ75	≥10000	≥11000	≥12000	≥14000	≥15000	
Bulk density, kg/m ³		1300-1400	1400-1500	1500-1600	1600-1800	≥1900
Note: The data of bulk density is given for reference only, not as the acceptance criterion						

3. Size

Diameter, mm	Φ6	Φ8	Φ10	Φ13	Φ16	Φ20	Φ25	Φ30	Φ38	Φ50	Φ60	Φ75
Tolerance, mm	±1.0		±1.5			±2.0			±3.0			

4. Product Standard

Chemical Industry Standard HG/T 3683.3 - 2000 Industrial Ceramics Ball I
-Inert Ceramic ball.

5. Product image



SW Activated Ceramic Ball

1. Product Description

SW activated ceramic ball is a new support material for catalyst. It is processed by adding a small amount of transition metal oxide into the inert ceramic ball. It preserves the property of high - temperature resistance and strength of the inert ceramic ball, in addition, it has adequate catalytic activity when used in the process of olefin hydrogenation. If been set on the top of catalyst bed in the reactor, the activated ceramic ball can make the olefin in the secondary processing fraction pre-hydrogenated and, keep the catalyst from coking. Similarly, if been set on the bottom, it can remove the thio-alcohol caused in the reaction process. On the whole using the SW activated ceramic all can not only save the space in reactor, but also protect the catalyst from poisoning or sintering and, consequently prolong the service life of catalyst.

2. Technical Specification

Type		(Ni-Mo)	(Ni-W)	(Co-Mo)
Item		SW-1	SW-2	SW-3
Active component		NiO 0.5-1.0 MoO ₂ 1.5-2.5	NiO 0.5-1.0 WO ₂ 1.5-2.5	CoO 0.5-1.0 MoO ₂ 1.5-2.5
Color		Yellowish brown	Faint yellow	Light grey
Pore volume, ml/g		0.1-0.2		
Thermal resistance, °C		≥800		
Abrasion loss, %		≤5		
Crushing strength N/pc	Φ3-10	≥150		
	Φ13-20	≥500		
	Φ25-50	≥1200		
	Φ75	≥3500		
Bulk density, Kg/m ³		1100-1300		
Note: The data of bulk density is given for reference only, not as the acceptance criterion				

3. Size

Diameter, mm	Φ6	Φ8	Φ10	Φ13	Φ16	Φ20	Φ25	Φ30	Φ38	Φ50	Φ60	Φ75
Tolerance, mm	±1.0			±1.5			±2.0			±3.0		

4. Catalytic Propert

Item \ Type	SW-1		SW-2			SW-3		
Reaction temperature, °C	275	300	300	320	350	300	320	350
Hydrogen pressure, MPa	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Liquid velocity, h-1	10	10	4.2	4.2	4.2	4.2	4.2	4.2
Ratio of hydrogen/oil	600	600	450	450	450	450	450	450
Sulfur content, Wt%	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Olefin content, Wt%	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5
Rate of desulfation, %	76	95	40	60	77	36	54	63
Olefin saturation, %	58	95	10	33	45	7	19	42

5. Product Standard

Chemical Industry Standard HG/T 3683.2 - 2000 Industrial Ceramics Ball – Activated Ceramics Ball.

6. Product image



Embossed Slot Perforated Efficient Ceramic Ball

1. Product Description

Embossed Slot Perforated Efficient Ceramic Ball is developed on the basis of KK perforated ceramic ball by slotting on the sphere, and by forming lot of knobs uniformly on the sphere of the ball. It can increase the surface area and free volume, and decrease the bulk density, It can increase flux of the fluids and decrease the resistance of the system. As a new efficient support and covering material of catalyst. It can be widely used in oil refinery, chemical, fertilizer, natural gas and environmental protection industries.

According to user requirement, it can be done microporous embossed Slot Perforated Efficient Ceramic Ball, add molybdenum, nickel, cobalt and other active ingredients to prevent catalyst coke coking and poisoning.

2. Technical Specification

Item		Type	Feldspar	Feldspar-Mullite	Mullite	Mullite-Corundum	Corundum
		Al ₂ O ₃	20-30	30-45	45-70	70-90	≥90
Chemical composition, %	Al ₂ O ₃						≥90
	Al ₂ O ₃ +SiO ₂						≤1
	Fe ₂ O ₃						≥98
Water adsorption, %							≤5
Acid resistance, %							≥98
Alkali resistance, %		≥80	≥82	≥85	≥90	≥95	
Thermal resistance, °C		≥1300	≥1400	≥1500	≥1600	≥1700	
Crushing strength N/pc	Φ10	≥1000	≥1100	≥1300	≥1500	≥1800	
	Φ13	≥1500	≥1600	≥1800	≥2300	≥2600	
	Φ16	≥1800	≥2000	≥2300	≥2800	≥3200	
	Φ20	≥2500	≥2800	≥3200	≥3600	≥4000	
	Φ25	≥3000	≥3200	≥3500	≥4000	≥4500	
	Φ30	≥4000	≥4500	≥5000	≥5500	≥6000	
	Φ38	≥6000	≥6500	≥7000	≥8500	≥10000	
	Φ50	≥8000	≥8500	≥9000	≥10000	≥12000	
Bulk density, kg/m ³		1100-1200	1200-1300	1300-1400	1400-1550	≥1550	
Note: The data of bulk density is given for reference only, not as the acceptance criterion							

3. Size

Diameter, mm	Φ10	Φ13	Φ16	Φ20	Φ25	Φ30	Φ38	Φ50	Φ60	Φ75
Tolerance, mm	±1.0	±1.5			±2.0			±3.0		
Diameter of hole, mm	2-3	3-5			5-8			8-10		

4. Product Standard

Chemical Industry Standard HG/T 3683.3 - 2000 Industrial Ceramics Ball
– Inert Ceramics ball.

5. Product image



MH Porous Ceramic Balls

1. Product Description

MH Porous Ceramic Ball is also called filtering ball. It is made by make 20~30% pores inside the inert ceramic balls. Therefore it can be used not only for supporting and covering the catalyst, but also for filtering and eliminating the impurities of grain, gelatin, asphaltine, heavy metals and iron ions of less than 25 μ m. If the porous ball is set on the top of a reactor, the impurities fail to be eliminated in former process could be adsorbed in the pores inside the balls, thereupon protect the catalyst and prolong the operating cycle of the system. As the impurities present in the materials are different, the user can select the product by their sizes, pores and porosity, or if necessary, add molybdenum, nickel and cobalt or other active components to prevent the catalyst from coking or poisoning.

2. Technical Specification

Type Item		MH-1	MH-2	MH-3
Chemical Composition, %	Al ₂ O ₃	20-80		
	Al ₂ O ₃ ±SiO ₂	≥90		
	Fe ₂ O ₃	≤1		
Pore size,um		0.5-35	40-100	110-1000
Porosity %		20-30	15-25	15-25
Air permeability,m ³ .cm/m ² .h.10Pa		0.2-0.8	1-6	7-50
Acid resistance, %		≥98	≥98	≥96
Alkali resistance, %		≥85	≥85	≥80
Thermal shocking resistance, (800-20°C)		100-12000 different upon types and size		
Crushing strength, N/pc		100-12000 Different upon types and sizes		
Bulk density, kg/m ³		1200-1500		

3. Size

Porous ceramic balls are divided into 12 grades by reference to Al₂O₃ content varied from 25% to 80%, and every more 5% constitutes a grade, but 12 sizes by reference to the diameter, such as Φ 3, Φ 6, Φ 8, Φ 10, Φ 13, Φ 16, Φ 20, Φ 25, Φ 30, Φ 38, Φ 50 and Φ 75.

The products in other grade and sizes can be designed and manufactured if to the user's request.

4. Product image



Heat Storage Ceramic Ball

1. Product Description

BS-XR Heat storage ceramic ball are characterized by its high strength, low abrasion loss, large heat capacity and thermal conductivity result in efficient heat storage performance, excellent resistance to high temperature and the thermal shock. The balls have been effectively used in recuperator in air separation process and also used to pre-heat the gas and the air in coal gas heating furnace in iron & steel plant.

2. Technical Specification

Item \ Type		BS-XR-1	BS-XR-2
Chemical Composition, %	Al ₂ O ₃	20-30	60-65
	SiO ₂ +Al ₂ O	≥90	≥90
	Fe ₂ O ₃	≤1	≤1.5
Size, mm		φ10-12/φ12-14	φ16-18/φ20-25
Heat capacity, J/kg.k		≥836	≥1000
Thermal conductivity, w/mk		2.6-2.9	
Thermal shock resistance, °C		20~800	20~1000
Refractoriness, °C		1550	1750
Abrasion loss, %		≤0.1	≤0.1
Mohs' hardness, Scal		≥6.5	≥6.5
Crushing strength, N		800-1200	1800-3200
Bulk density, kg/m ³		1300-1400	1500-1600

In order to improve the heater's storage and release effectiveness and prolong the using life. We developed roughness groove-opening hole high effective heat storage ceramic ball and applied patent.

This kind of heat storage ceramic ball open the hole as diameter for axes and set up groove at the surface, making the ball surface convavo-convex, for which the specific area and void volume can be increased, and its exchange area is doubled 1.8 than normal thermal storage ceramic ball. It will enhance the precuts spalling resistance ability and the bulk density will be decreased by 15%. The materials distribution and flux will be further increased, while system's resistance is reduced, block of the powder also get reduced.

3. Product Standard

Chemical Industry Standard HG/T3683.1-2000 Industrial Ceramics Ball-Inert Ceramics Ball

4. Product image



Refractory ceramic ball

1. Product Description

Refractory ceramic ball is made from industrial alumina and other rawrefractory materials, and processed by mixing, shaping and firing.It has properties of High strength and long working life; High chemical stability, and never react with the feeding materials; xcellent resistance to high temperature up to1900 °C.

Refractory ceramic ball can be used as support and covering packings for catalyst in shift converter, reformer, hydro converter,desulfurizer, and methanator, and can also be used as packings in hot blast heater and heat transformer iniron and steel industries.

2. Technical Specification

Item		Type	General BS-RF-1	Corundum BS-RF-2	Low silicate BS-RF-3
Chemical Composition %	Al ₂ O ₃	30-90	90-98	≥99	
	SiO ₂	5-62	0.5-5.0	≤0.3	
	Fe ₂ O ₃	≤1	≤0.5	≤0.1	
Refractoriness, °C		≥1450	≥1750	≥1850	
Thermal shock resistance, °C		600	800	800	
Crushing strength, N		100-20000 Different upon types and sizes			
Mohs' harness		≥7	≥8	≥9	
Acid resistance, %		≥95	≥98	≥98	
Acid resistance, %		≥85	≥95	≥98	
Bulk density, kg/m ³		1200-1600	1800-2000	2000-2200	

3. Product image



Grinding Ceramic Ball

1. Product Description

The alumina grinding ball has been widely used in ball mills as abrasive media for ceramic raw materials and glaze materials in ceramic factories, cement factories, enamel factories and glass work owing to the excellence of high density, high hardness, high wear resistance. During the abrasive/grinding processing, ceramic balls will not be broken, it will not pollute the 95% material to be grinded.

2. Technical Specification

Item	Bulk density(g/cm ₃)	Al ₂ O ₃ (%)	Water absorption (%)	Abrasion (%)	Mohs' hardness (scal)
High alumina grinding ball	3. 65	92	≤0.02	≤0.15	9
	3. 68	95	≤0.01	≤0.10	9
Middle alumina grinding ball	2. 8-2. 9	60-70	<0.01	<0.01	≥8

3. Size

Item	size(mm)
High alumina grinding ball, 92%	φ30.40.50.60
High alumina grinding ball, 95%	φ30.40.50.60
Middle alumina grinding ball, 60~70%	φ30.40.50.60

4. Product image



Molecular Sieves

Molecular Sieves

1. Product Description

Molecular sieve is a kind of crystallized aluminosilicate, have uniform pore diameter, high specific surface areas, strong ability of selective absorption, high strength and thermal stability which have been proved successful when used in chemical, petrochemical and natural gas processes.

Baisheng molecular sieves have divided into several types of 3A, 4A, 5A, 10X, 13X, 13X APG, Insulating Glass Molecular Sieve, Carbon Molecular Sieve, Activated Molecular Sieve Powder etc. according to its use.

2. Excellent Features

- Selective adsorption, that it will absorb the molecules of which the diameter is less than the pore size of molecular sieve.
- As for polar molecular and unsaturated molecular, it has selective absorption. The bigger the polarity, the higher the unsaturated ratio, the stronger the selective adsorption.
- Strong property of water absorption even in high temperature, large space velocity or low content of water, it has quite a higher water absorption capacity.

3. Technical Specification & Application of molecular sieve

Type	Bulk density γ (g/ml)	Water absorption A(%)	Wear ability W(%)	Application
▶3A	0.60~0.70	19~20	0.3~0.6	Drying agent for pyrolysis gas and alkene
▶4A	0.60~0.70	20~21	0.3~0.6	Drying agent for natural gas and absorbent for paraffin separation
▶5A	0.60~0.70	20~21	0.3~0.5	Dehydration, desulfurization and purification of air natural gas and oil, nitrogen making and hydrogen making by PSA processes
▶5A-DW	0.45~0.50	21~22	0.3~0.6	Aviation kerosene dewaxing and paraffin separation
▶10X	0.50~0.60	23~24	0.3~0.6	High-pow absorbents for removal of H ₂ O, H ₂ S and CO ₂ in liquid and gas, as well as for paraffin separation
▶13X	0.55~0.65	23~24	0.3~0.5	Dry and desulfurization and purification for oil and gas
▶13X-AS	0.55~0.65	23~24	0.3~0.5	Dry and decarbonation in air separation
▶Cu-13X	0.50~0.60	23~24	0.3~0.5	Absorbent for removal of thioalcohol in aviation kerosene and the liquid hydrocarbon

4. Product image



Activated Alumina

Activated Alumina

1. Product Description

Activated alumina has high capacity of absorption, large surface area, high strength and thermal stability. It can be widely used as absorbent desiccant and catalyst carrier in chemical, petrochemical, fertilizer, oil and gas industries.

2. Technical Property

Type		KA401	KA402	KA403	KA404	KA405	KA406
Item		Absorbent	Defluoridizer	Absorbent for H ₂ O ₂	Antichlor	Catalyst carrier	Absorbent in air separation
Apperance		White, Sphere					
Main crystal phase		x-p	x-p	y	x-p	y	x-p
Chemical composition %	Al ₂ O ₃	≥90	≥90	≥92	≥90	93	90
	Na ₂ O	≤0.3	≤0.3	≤0.5		0.15-0.3	≤0.3
	I.L	6-8	6-8	≤8	≤8	≤8	≤9
Bulk density, g/ml		≥0.65	0.70-0.75	0.65-0.75	0.68-0.78	0.68-0.80	0.68-0.72
Surface area, m ² /g		≥280	≥280	200-260	≥300	≥200	≥300
Pore volume, ml/g		0.3-0.45	0.3-0.42	0.4-0.45	≥0.35	≥0.4	≥0.35
Static absorption, %		Water, 5-17	Fluorin, 0.12	Water, 50	Chlorine 10-20	Water 50-70	Water 17-19
Activity, %				56-62			
Loss on abrasion, %		≤0.5	≤0.5	≤0.4	≤0.5	≤0.8	≤0.5
Crushing strength, N/pc	Φ1-2	≥40	≥40		≥40		
	Φ2-3	≥60	≥60		≥80		
	Φ3-5	≥100		≥100	≥100	≥100	≥100
	Φ4-6	≥130		≥130	≥130	≥140	≥130

3. Product image



Environmental Filter

Ceramic Sand Filters

1. Product Description

Ceramic sand filters are doped with rare earth element and processed by mix, shaping and sintering. Ceramic sand filters have great advantages of strong filtering adsorption ability, high strength, low resistance, corrosion resistance, non-toxic, easy to regenerate and long service life etc.

2. Chemical composition

Item	AL ₂ O ₃	SiO ₂	Fe ₂ O ₃	MgO	CaO	K ₂ O+Na ₂ O	Rare Elements
Value	18-25%	68-74%	≤1.0%	≤0.7%	≤0.5%	≤4%	Micro component

3. Technical Indexes

Item	Index	Item	Index
Particle Size, mm	0.5~3.0	Water permeability, t/m ² .h	2~3
Compressive strength, N	30~150	Gas permeability, m ³ /m ² h.h	1500~2000
Abrasion resistance, %	<0.5	Bulk density, g/ml	1.1~1.5
Acid resistance, %	>98	Free volume, %	40~45
Alkali resistance, %	>82	Thermal resistance, °C	-80~1200

4. Product Sizes (mm):Φ0.5~1, Φ1~2, Φ2~3.

5. Product image



Ceramic Grain Filters

1. Product Description

Ceramic grain filters are made of refined pottery clays added with certain modifiers, and processed of grinding, mixing, shaping and high temperature sintering. They do not contain any substances that harmful to people or environment. They are hard and rough in surface, porous inside the structure, and have the advantages of high mechanical strength large specific surface area and porosity, When used in water treatment, they behave a activated surface property, a great amount of pollutant entrapment, less water head loss in the filter bed, lower consumption of back-flush water, stable in chemical and physical property, and long service life. Ceramic grain filters is a new and efficient filter material to increase the water yield, upgrade the water quality, and save chemicals and energy.

2. Chemical Composition

Item	SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	CaO	MgO	K ₂ O+Na ₂ O
Value	50~70%	15~25%	0.5~10%	1~5%	1~5%	3~5%

3. Technical Indexes

Item	Index
Appearance	Rough ball, porous, red & brown
Pore size, μm	0.1-50
Apparent density, g/cm ³	1-1.1
Total porosity, %	≥55
Attrition & crushing rate, %	≤1.62
Solubility in acid, %	≤2.83
Solubility in alkali, %	≤1.5
Soluble substance	No any harmful elements contained

4. Product Sizes (mm): Φ0.5~1, Φ1~2, Φ2~3, Φ3~5, Φ3~5, Φ5~6, Φ6~8, Φ8~9, Φ9~10, Φ10~12, Φ13~15, Φ16~20, Φ21~60.

5. Product image



BS Filter

1. Production Description

BS Filter is a new filter that powerful bio-membrane filter materials as the filter element. The filter has advantages of energy-saving and high efficiency. It is applied to not only the abstractions of suspended substance in primary water, but also in the deep treatment of oil sewage.

2. Main Characteristics

Separate automatically, filter accurately, back flush thoroughly and efficiently, high strength, reliable running, maintain simply, high standardization, install conveniently, large filter area and long service life.

3. Application

Available for separation of suspended matter and oil in liquid, especially in the poisonous medium. Be widely used in water treatment and mass separation in chemical, petrochemical, metallurgic pyrochemical electric, food, medical, textile and papermaking industries.

4. Technical Specification

Type	Designed flow (Q,m ³ /h)	Designed pressure (P,Mpa)	Designed Pressure drop (ΔP,Mpa)	Oil remove rate (%)	Suspended Oil remove rate (%)
BS-1	15	1.2	≤0.06	Normal ≤3ml/L Pyrochemical and iron&steel plant ≥65-85% Fertilizer plant ≤3mg/L	Normal ≥95% Pyrochemical and iron&steel plant ≥93% Fertilizer plant t ≥93%
BS-2	25				
BS-3	60				
BS-4	120				
BS-5	280				

5. Product image



Porous Ceramic Filter Bricks, Boards & Pipes

1. Product Description

The porous ceramics is composed of lots of bridge arch-shaped microspores that connected and well- distributed inside the material. When the fluid passes through these pores, the suspended matters, colloid particles and big molecular organic substances are withheld or absorbed to the inner surface of the pore, and result in filtration, purification and even-dispersion, High strength, good resistance to abrasion, high temperature and corrosion, no pollution, long working life, and easy to regenerate, the porous ceramics are available for filtration and fluidization of various gas and liquid.

2. Technical Indexes

Item	Index	Item	Index
Bulk Density,(g/cm ³)	1.4~1.6	Rupture strength,(Mpa)	3.5-5.0
Pore size,(um)	10-500	Acid resistance,(%)	≥98
Porosity,(%)	30-50	Alkali resistance,(%)	≥82
Water permeability,(t/m ² .h)	1.0-2.5	Mohs' hardness, (Scal)	6~8
Gas permeability, (nm ³ /m ² .h)	1.8-5.0	Thermal resistance,(°C)	800
Compressive strength,(MPa)	12-15		

3.Type and Size

Type	Size	Type	Size	Type	Size
	Porous brick L×W×H (mm)		Porous plate 长 X 宽 X 高 L×W×H (mm)		Porous pipe OD×I.D×L (mm)
NCZ-1	230X113X65	NCB-1	230X230X45	NG-50A	50X30X500
NCZ-2	230X113X60	NCB-2	250X250X55	NG-50B	50X30X700
NCZ-3	230X113X55	NCB-3	300X300X60	NG-80A	80X50X500
NCZ-4	230X113X50	NCB-4	330X330X65	NG-80B	80X50X700
NCZ-5	230X113X45	NCB-5	350X350X60	NG-100	100X60X700
NCZ-6	230X113X40	NCB-6	400X400X65	NG-200	120X80X1000

4. Product image



Honeycomb Ceramic

Honeycomb Ceramic Heat Accumulation Substrate

1. Product Description

Honeycomb Ceramic Heat Accumulation Substrate has low heat expansion coefficient, large surface area, good heat stability and anticorrosion. It is the key and core components of regenerative high temperature combustion (HTAC technology). The product has been widely used in iron and steel, machinery, building materials, petrochemicals, nonferrous metals, smelting and other industries of all kinds of furnace, stove, heat treatment furnace, forging furnace, cracking furnace, melting furnace, soaking furnace, kiln baking etc. It can greatly save energy (typically 10%-70% energy), improve the thermal efficiency of thermal equipment, while reducing CO₂ emissions (10% -70%).

2. Physical & Chemical Properties

Type		Alumina	Mullite	Dense Cordierite	Porous Cordierite	Mullite-Cordierite	Corundum-Mullite
Chemical composition, %	Al ₂ O ₃	48-55	66-72	32-36	32-37	55-65	20-26
	SiO ₂	40-45	25-30	45-52	46-52	28-36	68-75
	MgO			5-8	8-12	2.5-3.2	0.2-0.3
	K ₂ O+Na ₂ O+CaO	4.0-5.5	≤1.0	≤3.0	≤2.0	≤1.0	2.5-4.0
Density,g/cm ³		2.7	2.9	2.4-2.6	1.9-2.0	2.9-3.2	2.3-2.5
Coefficient of thermal expansion (20-1000°C),×10 ⁻⁶ ·°C		5-7	5.5-6.5	2.5-3.5	1.3-2.5	2.5-4.0	5-7
Heat capacity (20-1000°C),j/kg·°C		800-900	1100-1300	800-1200	750-900	850-1100	840-920
Thermal conductivity (20-1000°C)W/m·°C		1.5-2.5	1.5-2.0	1.5-2.58	1.3-1.5	1.5-2.3	1.0-1.2
Spalling resistance,°C		≥150	≥350	≥250	≥360	≥250	≥150
Max Working temp.°C		1300	1600	1300	1300	1400	1300

3. Type and Size

Type	1	2	3	4	5	6
Number of channels	5×5	13×13	20×20	25×25	40×40	50×50
Channel density,cm-2	0.15	1	2	3	7	11
Width of channel,mm	26.3	9.2	6.4	4.9	3.0	2.3
Thickness of wall,mm	2	1.5	1.2	1.0	0.7	0.7
Surface area,m ² /m ³	117	278	455	540	825	1005
Free cross-section,%	77	74	73	67	65	57
Size,mm	Standard sizes: 150×150×600/450/300/150/100/50 Others: 100×100×100/40					

4. Product image











Ceramic Packing

Ceramic Random Packing

1. Product Description

Ceramic Random Packing has excellent acid and heat resistance. It can resist to corrosion of various inorganic acids, organic acids and organic solvents except hydrofluoric acid, and can be used in high or low temperature conditions. Consequently the application range is very wide. Ceramic ring (packing) can be used in the drying columns, absorption columns, cooling towers, scrubbing towers and actifier columns in chemical industry, metallurgy industry, coal gas industry, oxygen producing industry.

Rasching ring		Intalox saddle	
φ16, φ25, φ38, φ50, φ76		φ16, φ25, φ38, φ50, φ76	
Cross partition ring		Conjugate ring	
Φ76, φ100, φ150		φ25, φ38, φ50	
Pall ring		Cascade ring	
φ25, φ38, φ50, φ76		φ25, φ38, φ50, φ76	
Super intalox		Tri-Y ring	
φ25, φ38, φ50, φ76		φ25, φ38, φ50, φ76	

2. Characteristic Indexes

Name	Normal size	Dia. x H x T mm	Surface area m ² /m ³	Void space %	Bulk Density Kg/m ³	No.elements per /m ³	Packing factor m ⁻¹
Rasching ring	φ16	16X16X3	305	70	690	178000	960
	φ25	25X25X3	190	78	580	42000	400
	Φ38	38X38X4	126	75	577	12000	305
	φ50	50X50X5	93	81	580	5200	177
	Φ76	76X76X9	76	68	500	2100-2500	243
Cross-partition ring	Φ76	76X76X9	135	50	520	2100-2500	1080
	φ100	100X100X10	110	56	750	900-1000	626
	φ150	150X150X15	60	58	680	270-300	308
Pall ring	φ25	25X25X3	210	73	630	36000	540
	φ38	38X38X4	140	75	590	12000	332
	φ50	50X50X5	100	78	520	4900	210
	Φ76	76X76X9	70	80	470	1500	137
Intalox saddles	φ16	16X12X2	450	70	710	382000	1311
	φ25	25X19X3	250	74	610	84000	617
	φ38	38X30X4	164	75	590	25000	389
	φ50	50X40X5	142	76	560	9300	323
	φ76	76X57X9	92	78	520	1800	194
Super intalox	φ25	25X19X3	160	78	530	52000	337
	φ38	38X30X4	102	80	480	16000	199
	φ50	50X40X5	88	81	450	7300	166
	φ76	76X57X9	58	82	430	1600	105
Cascade ring	φ25	25X15X3	210	73	650	72000	540
	φ38	38X23X4	153	74	630	21600	378
	φ50	50X30X5	102	76	580	9100	232
	φ76	76X46X9	75	78	530	2500	158
Conjugate ring	φ25	25X25X3	175	78	520	64000	369
	φ38	38X38X4	118	80	470	14000	230
	φ50	50X50X5	72	81	450	6300	135
Tri-Y ring	φ25	25X13X2	240	74	760	87000	390
	φ38	38X20X3	160	75	740	27600	260
	φ50	50X30X4	138	75	745	10100	233
	Φ76	76X50X9	90	70	710	1910	262

Ceramic Structured Packing

1. Product Description

The Ceramic structured packing has the advantages of a higher surface area, flux, less resistance, higher efficiency, corrosion resistance and high-temperature resistance (up to 1000°C or above). It is flexible in operation and without amplification effect in a large tower, and particularly suitable for the rectification and absorption of corrosive mixture on the occasion of strict requirements of pressure drop and number of theoretical plates.

2. Physical & Chemical Properties

Item	Value
Acid resistance,(%)	≥99.8
Alkali resistance(%)	≥92
Thermal resistance,(°C)	0-1300
Crushing strength,(Mpa)	≥2.0
Mohs' hardness,(Scale)	≥7



3.Characteristic Indexes

Type	Surface area m ² /m ³	Bulk density kg/ m ³	Fraction rate %	Nt m ⁻¹	ΔP pa/m	Wave heighth mm	Wave instance mm	Thickness mm
100	100	220~250	90	1	250~300	30±0.5	50±0.5	2.0~2.5
125	125	300~350	87	1.5~1.8	280~350	23.0±0.5	42±0.5	2.0~2.5
160	160	350~380	86	1.8~2.0	250~300	17.0±0.5	34±0.5	1.5~2.0
250	250	420~450	82	2.3~2.5	220~280	11.0±0.5	22±0.5	1.2~1.5
350	350	480~520	78	2.5~2.8	200~260	8.0±0.5	16±0.5	1.2~1.5
400	400	500~520	76	2.8~3.2	180~260	7.0±0.5	14±0.5	1.0~1.3
450	450	520~550	75	3~4	200~250	6.0±0.5	12±0.5	1.0~1.3

The ceramic structured packing has the types of 100~750 X / Y, X and Y respectively represents the wave angle are 30°,45°, and the number means the value of surface, The diameter can be manufactured in 100~8000 mm, if upon request, it can also be designed and manufactured to meet the need of specific applications.

Ceramic Combined Packing

1. Product Description

Ceramic Combined Packing is advantage of large surface area with a high void ratio and mass transfer coefficient. It also contains anti-block, anti-corrosion and sudden cold/hot resistance componets. It is very durable and can be easily installed. It has been widely used in the process of coking desulphuruzation, methanol, washing benzene, naphthalene and ammonia sulfuric acid drying, fertilizer hot water saturatio tower.

2. Technical Specification

Product name	Type	Subtense distance (mm)	Accumulation gap (mm)	Porous area (mm)	Surface area (m ² /m ³)	Voild volume (%)	Bulk density (Kg/m ³)	No.element (pc/m ³)
Seven link pores ring	BS-1	220±2.5	20	65	118	85	280	200
Seven musle pores ring	BS-2	220±2.5	20	65	128	75	320	200
Seven rhombus pores ring	BS-4	220±2.5	20	65	132	75	300	200
Six rhombus musle ring	BS-3	220±2.5	20	65	120	80	300	200
Hexagon pores ring	BS-5	220±2.5	20	65	135	79	300	200

3. Technical Index

Item	Technical index	
Bulk density, kg/cm ³	280-320	
Volume density, kg/cm ³	2.3-2.6	
Void space, %	72-85	
Apparent porosity, %	15-35	
Thermal resistance, °C	1100	
Acid resistance, %	≥98.8	
Alkali resistance, %	≥85	
Mohs' hardness, Scal	≥6.5	
Chemical composition %	Al ₂ O ₃	≥18
	Fe ₂ O ₃	≤1.0
	Al ₂ O ₃ +SiO ₂	≥93

4. Product image



Plastic Packing

Plastic Random Packing

1. Product Description

Plastic tower packing is made of those heat resistant and chemical corrosion resistant plastics, including, PP, PVC, CPVC, UPVC and PVDF. It has features such as high void ratio, low pressure drop, low mass-transfer unit height, high flooding point, uniform gas-liquid contact, small specific gravity, high mass transfer efficiency and so on, and the operating temperature in media ranges from 60C to 150C. For these reasons it is widely used in the packing towers in petroleum industry, chemical industry, alkali-Chloride industry, coal gas industry and environmental protection, etc.

2. Types

Type: pall ring, heilex ring, cascade mini ring,congigate ring,VSP ring,intalox saddles,super ring,rasching ring,teller rosetter, polyhedral hollow ball packing etc.









3. Major Specification

Name	Specification mm	D x H x S mm x mm x mm	Surface area Kg/ m ³	Void space kg/ m ³	Bulk Density kg/ m ³	No.Elements pcs/ m ³	Dry packing factor m ⁻¹
Pall ring	φ25	25X25X1.2	213	91	85	53500	285
	φ38	38X38X1.4	151	91	82	15800	200
	φ50	50X50X1.5	100	92	60	6300	130
	φ76	76X76X2.6	72	92	62	1930	92
Intalox saddles	φ25	25X13X1.2	288	85	102	97680	467
	φ38	38X19X1.2	265	95	91	25200	309
	φ50	50X25X1.5	250	96	75	9400	282
	φ76	76X38X3.0	200	97	59	3700	220
Super intalox	φ38	38X19X1.2	178	96	75	25200	201
	φ50	50X25X1.5	168	97	68	9400	184
	φ76	76X38X3.0	130	98	52	3700	138
Cascade ring	φ25	25X13X1.2	228	90	98	81500	313
	φ38	38X19X1.4	133	93	58	27200	176
	φ50	50X25X1.5	114	94	55	10740	143
	φ76	76X37X3.0	90	93	68	3420	112
Heilex	φ50	50X50X1.5	107	94	61	8200	128
	φ76	76X76X1.8	75	95	56	3180	87
	φ100	100X100X2.0	55	96	48	1850	62
Conjugate ring	φ25- I	25X25X1.0	185	95	96	74000	216
	φ38- I	40X34X1.5	130	93	61	18650	162
	φ38- II	37X37X1.5	142	91	80	16320	188
	φ50- II	50X40X1.5	104	80	66	9500	164
	φ76	76X76X2.5	81	95	81	3980	94
HQM flat ring	φ38	38X12X1.2	145	92	70	46000	186
	φ50	50X17X1.5	128	93	67	21500	159
	φ76	76X26X2.5	116	93	58	6500	144
Teller rosetter	φ25	25X9X(1.5X2)	269	82	128	175000	488
	φ47	47X19X(3X3)	185	88	111	32500	271
	φ51	51X19X(3X3)	180	89	103	25000	255

	φ59	59X19X(3X3)	150	92	102	17500	213
	φ73	73X28X(3X4)	127	89	102	8000	180
	φ95	95X37X(3X6)	94	90	88	3600	129
	φ145	145X48X(3X6)	65	95	47	1100	76
Polyhedral hollow ball	φ25	Φ25x1.0	200	42	125	41500	2700
	φ38	Φ38x1.2	150	42	121	22000	2025
	φ50	Φ50x1.5	120	42	73	10480	1620
Polyhedral ball	φ25	Φ25x1.0	460	90	96	65100	631
	φ38	Φ38x1.2	325	91	83	28500	355
	φ50	Φ50x1.5	236	91	76	11500	313
Cage ball	φ38	Φ38x1.2	96	88	110	22000	141
	φ50	Φ50x1.5	82	90	88	10480	112
Covering ball	φ40- I	Φ40x1.2	Coverage rate 91%	9.5	118	710	Compressive strength ≤0.4Mpa
	φ40- II	Φ40x1.2 Band-edge-type	Coverage rate 97%	9.3	110	660	Operation temperature ≤120℃

4. Physical Properties

Material Item	PE	PP	RPP	PVC	CPVC	PVDF
	Density, g /cm ³	0.94~0.96	0.89~0.91	0.92~0.94	1.32~1.44	1.50~1.54
Operation temperature, °C	≤90	≤100	≤120	≤60	≤90	≤150
Chemical resistance	corrosion-resistant					
Crushing strength, N/mm	≥6.0	≥6.5	≥7.0	≥6.0	≥8.0	≥10.0

Pall ring		Intalox saddle	
φ25, φ38, φ50, φ76		φ25, φ38, φ50, φ76	
Conjugate ring		Heilex	
φ25, φ38, φ50		Φ50, φ76, φ100	
Cascade ring		Polyhedral ball	
φ25, φ38, φ50, φ76		φ25, φ38, φ50	
Teller rosetter		Saddle plastic	
φ25, φ47, φ51, φ73, φ95, φ145		Φ32	

Plastic Structured Packing

1. Product Description

The plastic structured packing includes honeycomb inclined & straight tube, plastic corrugated plate packing and plastic gauze corrugated packing etc.

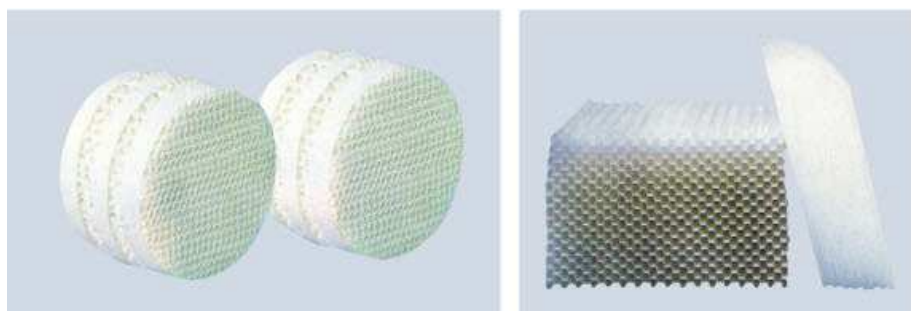
The plastic structured packing has the characteristic of light weight, big flow, low drop pressure, large specific surface area, easy change etc. The plastic gauze corrugated packing is made of PP and polyacrylonitrile line. Also the plastic corrugated plate packing was assembled PP, PVDF and PVC material. The plastic plate same metal corrugated plate packing as structure which can be perforated to increase the transfer efficiency. The honeycomb sloping pipe and the honeycomb straight pipe are existed as packings of water treatment chemical tower and cooling tower etc. it is characterized the properties as below.

2. Characteristic Indexes

Model	Nt ⁻¹	Surface area m ² /m ³	Void volume %	Pressure drop Pa/m	Bulk density kg/m ³	Liquid load m ³ /m ² .h	Max F-factor (kg/m ³) ^{0.5}
SKB-125Y	1. 0~2.0	125	98.5	100	37.5	0.045~0.05	3
SKB-250Y	2~2.5	250	97	130	75	0.04~0.05	2.6
SKB-350Y	3.5~4	350	95	180	105	0.35~0.045	2.0
SKB-500Y	4~4.5	500	93	300	150		1.8
SKB-125X	0.8~0.9	125	98.5	140	37.5	0.045~0.05	3.5
SKB-250X	1.5~2	250	97	130	75	0.04~0.05	2.8
SKB-350X	2.3~2.8	350	95	180	105	0.35~0.045	2.2

3. Structure Size

Serial No.	Item	Unit	X shape			Y shape		
			125X	250X	350X	125Y	250Y	350Y
1	Waved height, h	mm	22±0.5	11±0.4	8±0.3	22±0.5	11±0.4	8±0.3
2	Waved istance, 2B	mm	42±0.5	22±0.4	16±0.3	42±0.5	22±0.4	16±0.3
3	Obliquity, θ	Degree	30±1	30±1	30±1	45±1	45±1	45±1
4	Gear-shape angle, β	Degree	88±1	90±1	90±1	88±1	90±1	90±15



Metallic Packing

Metallic Random Packing

1. Product Description

The materials of metallic random packings include carbon steel and stainless steel, compound metal etc. Owing to its thin wall, low resistance, high void and capacity, metallic structured packings have high separation efficiency and long life etc, and applied to handle the thermals sensitive, hard to separation and easy carbonized materials in the vacuum rectifying towers.

2. Types

Metallic random packings include Tri-Y ring, Conjugate ring, VSP ring, HQM flat ring, Intalox saddles, Cascade ring, Rasching ring, Pall ring, Nate Ring etc.

Pall ring		Intalox saddle	
φ25, φ38, φ50, φ76		φ25, φ38, φ50, φ76	
Twin curved ring		Conjugate rings	
φ25, φ38, φ50, φ76		φ25, φ38, φ50, φ76	
Cascade ring		Polyhedral ball	
φ25, φ38, φ50, φ76		φ25, φ38, φ50, φ76	

3. Major Technical Specification

Name	Normal size	Diameter x Height x Thickness mm	Surface area m ² /m ³	Void space	Bulk density kg/ m ³	No.elements per/ m ³	Packing factor m ⁻¹
Conjugate ring	φ25	25X25X0.3	185	95	312	75000	216
	φ38	38X38X0.5	116	96	275	19500	131
	φ50	50X50X0.8	86	96	275	9770	97
	φ76	76X76X1.0	81	97	245	3980	95
VSP ring	φ25	25X25X0.6	250	93	420	59200	310
	φ38	38X38X0.6	138	95	296	14000	163
	φ50	50X50X0.8	121	95	350	7000	144
	φ76	76X76X1.0	75	95	280	1950	86
Intalox saddles	φ25	25X20X0.6	185	96	409	101160	209
	φ38	38X30X0.8	112	96	365	24680	137
	φ50	50X40X1.0	75	96	291	10400	85
	φ76	76X60X1.2	58	97	245	3320	63
Twin curved ring	φ25	25X13X1.2	228	90	98	81500	313
	φ38	38X19X1.4	133	93	58	27200	176
	φ50	50X25X1.5	114	94	55	10740	143
	φ76	76X37X3.0	90	93	68	3420	112
HQM flat ring	φ16	16X5.5X0.5	348	92	604	630000	312
	φ25	25x9.0x0.6	228	94	506	160000	280
	φ38	38X12.7X0.7	150	95	390	48000	175
	φ50	50X17X0.8	115	97	275	21500	156
Cascade ring	φ25	25X12.5X0.5	221	95	383	98120	257
	φ38	38X19X0.6	153	96	325	30040	173
	φ50	50X25X0.8	109	96	308	12340	123
	φ76	76X38X1.2	72	96	306	3540	81
Pall ring	φ25	25X25X0.5	219	95	393	51940	255
	φ38	38X38X0.6	146	96	318	15180	165
	φ50	50X50X0.8	109	96	314	6500	124
	φ76	76X76X1.2	71	96	308	1830	80

Metallic Structured Packing

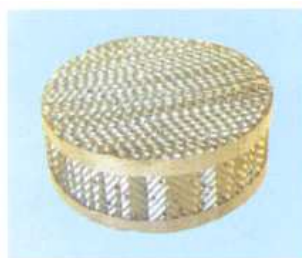
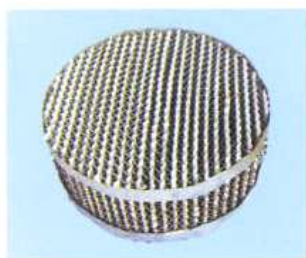
1. Product Description

The materials of metallic structured packings including carbon steel, stainless steel and compound metal etc. Owing to its thin wall, low resistance, high void and capacity, metallic structured packings have high separation efficiency, and applied to handle the thermals sensitive, hard to separation and easy carbonized materials in the vacuum rectifying towers.

Metallic structured packing include perforated & corrugated plate packing, metal wire gauze packing, plate-net corrugated packing and expanded pricking-plate corrugated packing..

2. Characteristic Indexes

Name	Type	Surface area m ² /m ³	Void space %	Bulk density kg/m ³	Wave height mm	Nt m-1	ΔP Pa/m	Max.F-factor m/s.(kg/m ³) ^{0.5}
Perforated corrugated palte	125	125	98	85-100	25.4	1-2	150	3
	250	250	97	170-200	12.5	2-3	200	2.6
	350	350	94	240-280	9	2.0-2.5	300	2.0
	500	500	92	360-400	6.3	4-5	180	1.8
Pricked&corrugated plate	700Y	700	85	240-280	4.5	5.0-7.0	900	1.6
	500Y	500	93	170-200	6.3	3.0-4.0	200	2.1
	250Y	250	97	85-100	12.5	2.5-3.0	300	2.6
Corrugated plate gauze	SW-1	650	91.6	140	4.5	6-8	260-460	1.4-2.2
	SW-2	450	95.5	360	6.5	4-5	220-240	1.6-1.8
Corrugated wire gauze	250(AX)	250	97	70	12.5	2.5-3.0	25-120	2.5-3.5
	500(BX)	500	95	140	6.3	4-5	200	2.0-2.4
	700(CY)	700	87	180	4.5	8-10	670	1.5-2.0



Anti-corrosion Packing

Acid Resistant Bricks, Boards & Pipes

1. Product Description

Acid Resistant Ceramic Pipes are used in metallurgical, chemical and oil industries. They are primarily used as linings inside the pipes in different kinds of furnaces, troughs, tanks, towers and stirring ponds.

Acid Resistant Bricks and Boards are widely used in drying and absorbing towers, reaction vessels and tanks in metallurgical, chemical and petrochemical processes. They are also used for antiseptic floor and flooring in containment areas.

2. Chemical Composition(%)

Item	Value(%)
SiO ₂	69.8
Al ₂ O ₃	22.5
K ₂ O	2.7
Na ₂ O	0.95
CaO	0.82
MgO	0.12
Fe ₂ O ₃	0.49
Loss ignition	0.54



3. Technical Specification

Item	Unit	Index	Standard
Volume density	g/cm ³	2.31~2.4	ZBG94003-86
Water absorption	%	< 0.2	GB8488-87
Acid resistance	%	≥99.8	GB8488-87
Compression strength	Mpa	> 120	ZBG94003-86
Thermo-stability	1300-20°C	Not crackle after 3 times	GB8488-87

4. Types and Size

Name	Specification	Name	Specification
Standard Brick	230x113x65	Acid-resistant Board	100x110x15
Regular Brick	230x65x65	Acid-resistant Board	150x150x15-30
Wedge Brick	230x113x55/65	Acid-resistant Board	150x75x15-30
Wedge Brick	230x113x25/65	Acid-resistant Board	100x100x10
Vertical Brick	230x113x55/65	Acid-resistant Board	80x80x10
Vertical Brick	230x113x25/65	Acid-resistant Board	50x50x10

Acid & Heat Resistant Bricks, Boards and Pipes

1. Product Description

Acid & heat resistant bricks, boards and pipes are special ceramics which can resist high temperature, shock chilling and strong acid corrosion. They are widely used in reaction tanks, towers, troughs and stirring ponds in metallurgical and chemical processes.

2. Technical Specification

Item	Unit	Index	Standard
Volume density	g/cm ³	2.21-2.24	HG/T3210-1986
Apparent porosity	%	9.3-10.5	HG/T3210-1986
Water absorption	%	4.2-4.7	GB/T8488-2001
Thermal shock resistance	920-20℃	10 次不裂 Not crackle after 10 times	GB/T8488-2001
Elastic constant	Mpa	2138	DIN
Compressive strength	Mpa	≥80	JC424-91
Thermal conductivity	W/m.K	1.175	DIN
Coefficient of thermal expansion	1/℃	3.2*10 ⁻⁶	DIN
Thermal expansion rate	%	0.31	DIN
Acid resistance	%	≥99.7	GB/T8488-2001



Tower internals

Grate Combination Ceramic Bar Arch

1. Product Description

The supporting structure is composed of beams and grills. Its main characteristics are: comprehensive porosity over 58%; capable to fit the requirement of 1.5-2 m/s high gas speed; easy manufacturing technique; low production cost; for reconstruction of old plant, only a little alteration is needed to satisfy the design requirement; easy maintenance and replacement of supporting structure.



2. Technical Specification

Item	Unit	Index	Test standard
Volume density	g/cm ³	2.3-2.6	ZBG94003-86
Water absorption	%	<0.2	GB8488-87
Flexural strength	Mpa	≥45	GB8488-87
Compressive strength	Mpa	≥128	ZBG94003-86
Thermo-stability	350-20℃	Not cracked by three times	GB8488-87

Hole-opening Ceramic Arch

1. Product Description

Large hole-opening ceramic arch is new-type supporting structure of packing of sulfuric acid drying tower and absorbing tower. Comparing with old-style structure, it has the advantages of uniform pore distribution, high mechanical strength, high safety and stability, strong corrosion resistance, convenient operation and long service life. It has shown excellent effect in many sulfuric acid enterprises.



2. Technical Specification

Item	Unit	Index	Test standard
Volume density	g/cm ³	2.31-2.53	ZBG94003-86
Water absorption	%	<0.5	GB/T8488-87
Repture strength	Mpa	≥45	G8/T488-87
Compressive strength	Mpa	≥180	ZBG94003-86
Thermo-stability	350-20℃	Not cracked by three times	GB/T8488-87

Ceramic Drag Roller

Ceramic Drag Roller

1. Product Description

The ceramic drag roller is the main part of belt Conveyor, tube is made of Casting powder as the main material, and it is made by high temperature. The ceramic drag roller has the advantages of high density, high hardness, high wear resistance, acid and alkali resistance, anticorrosion, waterproof, theftproof, long working life etc. It plays an important role for enterprises such as delaying equipment life, improving productive efficiency, and reducing product cost. It can be widely used in steel, coking, metallurgy, chemical, Thermal power plant industries.

2. Technical Specification

Item	Index	Unit
Al ₂ O ₃	30-42	%
SiO ₂	55-60	%
Compressive strength	≥160	Mpa
Flexural strength	≥90	Mpa
Water adsorption	≤0.5	%
Abrasion	≤0.13	%
Alkali resistance	95.6	%
Acid resistance	99.7	%
Density	2.6-2.9	G/cm ³
Hardness	≥7	Mohs



3. Types and Size

Name	Size(mm)	Name	Size(mm)
Upper drag roller	φ89x190	Below drag roller	φ89x600
Upper drag roller	φ89x240	Below drag roller	φ89x750
Upper drag roller	φ89x305	Below drag roller	φ89x950
Upper drag roller	φ89x375	Below drag roller	φ108x950
Upper drag roller	φ108x375	Below drag roller	φ108x1150
Upper drag roller	φ108x455	Below drag roller	φ108x1400
Upper drag roller	φ108x525	Below drag roller	φ108x1600
Upper drag roller	φ133x335	Below drag roller	φ133x1600
Upper drag roller	φ133x380	Below drag roller	φ159x800
Upper drag roller	φ133x405		
Upper drag roller	φ133x460		
Upper drag roller	φ133x530		

Package type



铁桶 Steel Drum

主要用于分子筛、活性氧化铝、催化剂、填料的包装。
For molecular sieves, activated alumina, catalyst, support media.



纸箱 Carton Box

主要用于陶瓷散堆填料或规整填料的包装
For ceramic random/structured packing



吨袋 Jumbo bag

主要用于散堆填料的包装。
For all kinds of random packing, support media.



编织袋 Weaving Bag

主要用于散堆填料、瓷球的包装。
For all kinds of random packing, ceramic ball.



木箱 Wooden box

主要用于蜂窝陶瓷的包装。
For honeycomb ceramic.



纸桶 Carton Drum

主要用于分子筛、活性氧化铝、催化剂的包装。
For molecular sieves, activated alumina, catalyst.