

J-CHEM 5A**Molecular Sieve**

5A. Molecular Sieve is mainly used in separation of the normal and isomeric alkanes; pressure swing adsorption (PSA) for gases; co-adsorption of moisture and carbon dioxide.

TYPICAL CHEMICAL AND PHYSICAL PROPERTIES**A. CATALYST DESCRIPTION**

Designation

J-CHEM 5A

Formula

 $0.70\text{CaO} \cdot 0.30\text{Na}_2\text{O} \cdot \text{Al}_2\text{O}_3 \cdot 2.0\text{SiO}_2 \cdot 4.5\text{H}_2\text{O}$ **B. TYPICAL PROPERTIES**

Item	Unit	Shape			
Shape		Extrudate		Sphere	
Diameter	Mm	1.5-1.7	3.0-3.3	2.0-3.0	3.0-5.0
Size	%	≥98	≥98	≥96	≥96
Bulk density	g/ml	≥0.60	≥0.60	≥0.60	≥0.60
Wear ratio	%	≤0.20	≤0.25	≤0.20	≤0.25
Crushing strength	N	≥30/cm	≥45/cm	≥30/p	≥60/p
Water adsorption	%	≥21.5	≥21.5	≥21.5	≥21.5
N-hexane adsorption	%	≥14	≥14	≥14	≥14
Water	%	≥1.5	≤1.5	≥1.5	≤1.5

J-CHEM 5A-PSA

Molecular Sieve

5A Molecular Sieve is mainly used to adsorb water, methanol, ethanol, sulfured hydrogen, carbon dioxide, ethylene, propylene, does not adsorb any larger molecular than 4A, and often used as desiccant in industrials.

TYPICAL CHEMICAL AND PHYSICAL PROPERTIES

C. CATALYST DESCRIPTION

Designation	<i>J-CHEM</i> 5A-PSA
Form	Extrudate
Size	1/16", 1/8"

B. PHYSICAL PROPERTIES as for 1/16" extrudate

Diameter	1.5-1.7 mm
Bulk density	≥ 0.70 Kg/L
Abrasion rate	≤ 0.2 %
Crush strength	≥ 3.5kg
CO capacity	≥ 30 ml/g
N ₂ capacity	≥ 10.2 ml/g
Hexane adsorption	≥ 135 mg/g
Static H ₂ O capacity	≥ 260 mg/g
575 °C Loss of ignition	≤ 1.5%