Molecular Sieve 4A
Technical Data Sheet (TDS)

1. Product Description

Molecular Sieve 4A is a sodium aluminosilicate of Type A crystal structure with a pore opening of approximately 4 Å (0.4 nm). It selectively adsorbs molecules such as water while excluding larger ones like CO_2 and C_2 hydrocarbons. It is widely used for drying and purifying gases and liquids, particularly in air separation units, refrigerants, and natural gas drying.

2. Typical Physical & Chemical Properties

Model	Form	Particle Size (Mesh / inch)	Pore Size (Å)	Water Adsorption (wt %)	Bulk Density (g/ml)	Crush Strength (N)	Packaging Moisture (wt %)
4A1430	Beads	14 × 30	4	≥ 22.5	≥ 0.7	≥ 30	≤ 1.5
4A812	Beads	8 × 12	4	≥ 22	≥ 0.7	≥ 30	≤ 1.5
4A48	Beads	4 × 8	4	≥ 22	≥ 0.7	≥ 30	≤ 1.5
4A116 / 4A18	Pellets	1/16″ and 1/8″	4	≥ 22	≥ 0.66	≥ 35 / ≥ 80	≤ 1.0 / ≤ 1.5

3. Applications

- Drying and purification of air, natural gas, and other industrial gases.
- Removal of water and CO_2 from feed gases before cryogenic separation.
- Purification of refrigerants, solvents, and hydrocarbon liquids.
- General use in static and dynamic adsorption systems.

4. Packaging & Storage

Standard packages: 25 kg aluminum foil bags in carton drums, 150 kg steel drums, and 500 / 1000 kg jumbo bags.
Each package is nitrogen-purged and vacuum-sealed to ensure activity.
Store below 40 °C in a dry area; after opening, reseal promptly to avoid moisture absorption.

5. Quality & Compliance

Produced under ISO 9001:2015 quality management system. Each batch is tested for adsorption capacity, crush strength, and bulk density to ensure consistent performance. Products are compliant with RoHS and REACH regulations.

6. Remark

Data above represent typical values for reference only. Henan CarbonFresh Activated Carbon Co., Ltd. reserves the right to revise specifications without prior notice.

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