Molecular Sieve 5A
Technical Data Sheet (TDS)

1. Product Description

Molecular Sieve 5A is a calcium sodium aluminosilicate zeolite, a variant of Type A crystal structure with a pore opening of 5 Å (0.5 nm). It selectively adsorbs molecules smaller than 5 Å, providing excellent performance in drying, purification, and separation of gases such as oxygen, nitrogen, and hydrogen.

2. Typical Physical & Chemical Properties

Product Code	5A812	5A48
Nominal Pore Size (Å)	5	5
Shape	Spherical	Spherical
Particle Size (Mesh)	8 × 12	4 × 8
Equilibrium Water Adsorption Capacity (wt%)	≥ 21 (25°C, 50 % RH)	≥ 21 (25°C, 50 % RH)
Heat of Adsorption (BTU/lb of water)	1800	1800
Bulk Density (g/ml) [lb/ft³]	≥ 0.7 [42]	≥ 0.6 [41]
Crush Strength (N) [lbf]	≥ 30 (7)	≥ 110 (24)
Particle Size Qualification (%)	≥ 96	≥ 96
Packaging Moisture Content (wt%)	≤ 1.5	≤ 1.5

3. Applications

- Removal of water, CO_2 and H_2S from natural gas and feed gases.
- Separation of normal and iso-paraffins (e.g., n-C_4 from iso-C_4).
- Air drying and purification in cryogenic separation units.
- Purification of hydrogen and oxygen streams.
- Moisture removal in refrigerants and chemical feedstocks.

4. Packaging & Storage

Standard packages: 25 kg aluminum foil bags in carton drums, 150 kg steel drums, 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 certified quality management. Each batch shall be tested for adsorption capacity, crush strength and bulk density to ensure consistent pe

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.

Web:www.carbonfreshcn.com|Email:info@carbonfreshcn.com|Tel:+86155 3801 7198|
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