Molecular Sieve 3A
Technical Data Sheet (TDS)

1. Product Description

Molecular Sieve 3A is a potassium form of Type A zeolite with an effective pore size of about 3 Å (0.3 nm).
It selectively adsorbs water and other molecules smaller than 3 Å, while excluding larger compounds such as unsaturated hydrocarbons and olefins.
This unique selectivity makes 3A ideal for deep drying of polar liquids and gases without co-adsorption or undesired reactions.

2. Typical Physical & Chemical Properties

Property	Specification
Nominal Pore Size (Å)	3
Shape	Spherical
Particle Size (Mesh)	8 × 12 4 × 8
Equilibrium Water Adsorption Capacity (wt%)	≥ 21 at 25 °C, 50 % Relative Humidity
Heat of Adsorption (BTU/lb of water)	1800
Bulk Density (g/ml) [lb/ft³]	≥ 0.75 [46.8]
Crush Strength (N) [lbf]	≥ 35 (8)
Particle Size Qualification (%)	≥ 97
Packaging Moisture Content (wt%)	≤ 1.5

3. Applications

- Drying of olefin and paraffin streams (ethylene, propylene, butadiene, etc.).
- Drying of polar solvents such as alcohols and esters.
- Drying of natural gas, LPG, cracked gas and refinery feedstock.
- Drying of air and industrial gases to achieve ultra-low dew points.
- Adsorption medium used in sealed units and insulated glass applications.

4. Packaging & Storage

Standard Packages: 25 kg aluminum foil bags in carton drums, 150 kg steel drums, and 500 / 1000 kg jumbo bags.
Products are nitrogen-purged and vacuum-sealed to preserve activity.
Store in a dry area below 40 °C; after opening, reseal immediately to avoid moisture uptake.

5. Quality & Compliance

Manufactured under ISO 9001 certified quality management system (ISO 9001:2015).
Each batch is tested for key adsorption and mechanical parameters to ensure consistent performance. RoHS and REACH compliant.

6. Remark

Data shown here represent typical values and are for reference only.
Henan CarbonFresh Activated Carbon Co., Ltd. reserves the right to update specifications without notification.

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