Molecular Sieve 13X
Technical Data Sheet (TDS)

1. Product Description

Molecular Sieve 13X is a sodium form of Type X zeolite with an effective pore opening of approximately 10 Å (1.0 nm). It adsorbs molecules with diameters up to 10 Å and is primarily used for gas drying, CO_2 removal, and general gas purification applications. Compared with 3A, 4A and 5A types, 13X provides larger pore size and higher capacity for adsorbing bulkier molecules and acidic gases.

2. Typical Physical & Chemical Properties

Product Code	13X812	13X48
Nominal Pore Size (Å)	10	10
Shape	Spherical	Spherical
Particle Size (Mesh)	8 × 12	4 × 8
Equilibrium Water Adsorption Capacity (wt%)	≥ 26 (25 °C, 50 % RH)	≥ 26 (25 °C, 50 % RH)
Heat of Adsorption (BTU/lb of water)	1800	1800
Bulk Density (g/ml) [lb/ft³]	≥ 0.64 [40]	≥ 0.64 [40]
Crush Strength (N) [lbf]	≥ 35 (8)	≥ 80 (18)
Particle Size Qualification (%)	≥ 97	≥ 97
Packaging Moisture Content (wt%)	≤ 1.5	≤ 1.5

3. Applications

- Air and natural gas drying to achieve ultra-low dew points.
- CO_2 removal from natural gas and feed gases before cryogenic separation.
- Desulfurization and purification of hydrocarbon and inert gases.
- Oxygen enrichment and air separation processes.
- Drying and purification of refrigerants and breathing gases.

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 maintain activity.
Store in a dry area below 40 °C; after opening, reseal promptly to avoid moisture absorption.

5. Quality & Compliance

Manufactured under ISO 9001:2015 certified quality management system.
Each batch is tested for key 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 notification.

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