

# BASF 5ABF Molecular Sieve

**BASF 5ABF (binder-free) Molecular Sieve is a synthetic crystalline aluminosilicate with a regular micropore structure.**

Zeolite Structure	A type (LTA)
Pore Size	5 Å (0.5 nm)
Chemical Formula	$x \text{ CaO} \cdot (1 - x) \text{ Na}_2\text{O} \cdot \text{Al}_2\text{O}_3 \cdot 2 \text{ SiO}_2 \cdot n \text{ H}_2\text{O}$ , $x \geq 0.65$

### Product Applications

BASF 5ABF (binder-free) Molecular Sieve is commonly used for drying and desulphurization (H<sub>2</sub>S) of natural gas, for the manufacture of protective gases and for the removal of CO<sub>2</sub>. BASF 5ABF Molecular Sieve is also used for the separation of normal paraffins from branched and cyclic hydrocarbons.

BASF 5ABF (binder-free) Molecular Sieve is used for the selective adsorption and separation of polar molecules from mixtures with adsorbable but less polar molecules (e.g. preferred adsorption of H<sub>2</sub>S in presence of CO<sub>2</sub>).

### Regeneration

Regeneration of BASF 5A Molecular Sieve may be carried out by increasing the temperature and/or reducing the pressure or using a suitable purge gas, respectively.

### Packaging

- 216 L (130 kg) air-tight steel drums
- 800 kg big bags equipped with an aluminum foil laminate PE in-liner.

### Typical Properties

Beads Size Range, nominal, mm	1.6 - 2.5	2.5 - 5.0
Mesh Range, approx.	8 x 12	4 x 8
Bulk Density, compacted, g/L	620 – 700	620 – 700
Attrition, % wt.	Max 0.2	Max 0.2
Crush Strength, N/bead	Min 25	Min 40
Moisture Content (as delivered, % wt)	Max 1.0	Max 1.0
Water Adsorption Capacity*, 55% relative humidity, 20°C, % wt	Min 23.5	Min 23.5

\* Sample activated. Other beads and sizes available on request.

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