

Product Data Sheet

BASF 13X Molecular Sieve

BASF 13X Molecular Sieve is a synthetic crystalline aluminosilicate with a regular micropore structure

Zeolite Structure Pore Size Chemical Formula Faujasite type (FAU) 10 Å (1.0 nm) Na₂O . Al₂O₃ . m SiO₂ . n H₂O (m \leq 2.35)

Product Applications

BASF 13X Molecular Sieve is a highly selective adsorbent designed for the elimination of trace contaminants from air and other gases. It can also be used for the desulphurization (sweetening) of natural gas and other fluids, especially for the removal of mercaptanes, and for drying of gases and liquids.

Another field of application for BASF 13X is the non-cryogenic oxygen enrichment from air using pressure (vacuum) swing adsorption (PSA/VPSA) technique. It can be used as regenerative thermochemical energy storage for the generation of cold or heat, possibly using environmentally sound primary energy sources (sun energy, exhaust heat etc.).

Regeneration

Regeneration of BASF 13X Molecular Sieve may be carried out by increasing the temperature and/or reducing the pressure or using a suitable purge gas. The purge gas temperature must be sufficiently high to warm up the molecular sieve to a level of 200 °C to 300 °C, but not exceeding 450 °C. The appearance of so-called hydrothermal conditions during the regeneration should be avoided as far as possible. BASF 13X Molecular Sieve is nontoxic.

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	655 - 700	655 - 700
Attrition, % wt.	Max 0.2	Max 0.2
Crush Strength, N/bead	Min 25	Min 50
Moisture Content (as delivered, % wt)	Max 1.0	Max 1.0
Water Adsorption Capacity*, 55% relative humidity, 20 °C, % wt	Min 26.5	Min 26.5

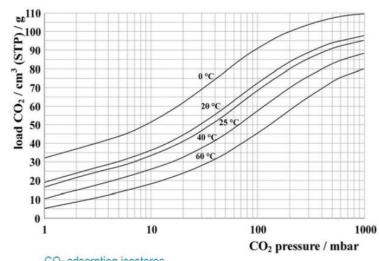
^{*} Sample activated. Other beads and sizes available on request.

Packaging

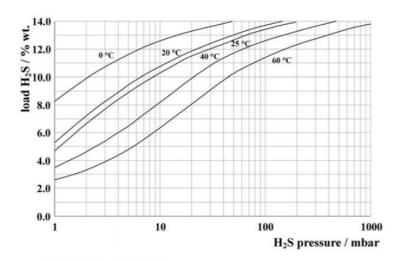
- 216 L (135 kg) airtight steel drums
- Polypropylene inliner equipped big bags of different sizes (650 or 800 kg net) supersacks



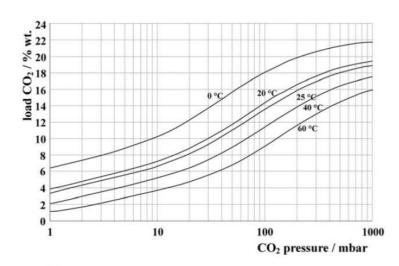
Product Data Sheet







H₂S adsorption isotherms



CO₂ adsorption isotherms

About Us

BASF is a leading global manufacturer of catalysts for the chemical industry, with solutions across the chemical value chain. The business comprises chemical catalysts and adsorbents, refinery catalysts and custom catalysts. In the process catalysts business, priority is given to developing new and improved products that enable the chemical industry transformation to net-zero emissions.

The division's portfolio also includes battery materials and recycling solutions, as well as environmental catalysts and metal solutions. Customers from a variety of industries including Automotive & Transportation, Chemicals, Plastics or Energy & Resources benefit from our innovative solutions. Further information on BASF's Catalysts division is available on the Internet at www.catalysts.basf.com.

BASF - We create chemistry

Americas

BASF Corporation Phone: +1-732-205-5000

Email: catalysts-americas@basf.com

Asia Pacific

BASF (China) Company Limited Phone: +86-21-2039 2549 Email: catalysts-asia@basf.com

Europe, Middle East, Africa

BASF Services Europe GmbH Phone: +49-30-20055000 Email: catalysts-europe@basf.com

Although all statements and information in this publication are believed to be accurate and reliable, they are presented gratis and for guidance only, and risks and liability for results obtained by use of the products or application of the suggestions described are assumed by the user. NO WARRANTIES OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE MADE REGARDING PRODUCTS DESCRIBED OR DESIGNS, DATA OR INFORMATION SET FORTH. Statements or suggestions concerning possible use of the products are made without representation or warranty that any such use is free of patent infringement and are not recommendations to infringe any patent. The user should not assume that toxicity data and safety measures are indicated or that other measures may not be required. © 2015 BASF