



HYYON® INDUSTRIAL

Product Information

molecular sieve 3Å

Date: 01 / 2019
Revision: 10

PI-No.: MS-3

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Product Description molecular sieve 3Å is a crystalline, high porous potassium alumino silicate. Gas, steams and liquids can be adsorbed reversibly or separated selectively due to the special crystal lattice with absolutely uniform, spherical cavities which are connected by channels. The large internal surface of 600 – 700m²/g results in a stronger bond of adsorption and in polar characteristics of the molecular sieve structure. The pore openings are approx. 3Å across. Molecules bigger than the pore opening of the molecular sieve cannot be adsorbed, smaller can.



Formula
CAS-No.

$K_{12}[(AlO_2)_{12}(SiO_2)_{12}] \cdot 12 H_2O$
1318 – 02 – 1

Physical and chemical

Adsorption capacity min. 18.5 %
(on dry basis; 40 % RH, 25 °C)

Characteristics

Moisture loss (1h, 550°C) max. 1.5 %

Bulk density min. 720 g/l

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Standard grain sizes	0.7 – 2.0 mm	
	> 2.0 mm	max. 10.0 %
	< 0.7 mm	max. 10.0 %
	Other gradings on request	

Applications molecular sieve 3Å is used in various applications, such as the purification of gas, the drying of steam and liquids and the removal of water from air. The reactivation of the molecular sieve 3Å takes place via heating up on 350 – 400 °C or via reduction in pressure. The molecular sieve 3Å has been particularly developed for use in manufacture of insulating glass. Because of pore diameter of approx. 3Å, the molecular sieve does not uptake nitrogen, argon or SF₆. Therefore molecular sieve 3Å is recommended for air-filled as well as for gas-filled insulating glass units.

Packing Airtight in 25 kg – bags, cartons, reconditioned 150 kg steel drums or 1000 kg-bulk bags with PE-Inliner

Handling molecular sieve 3Å must always be kept in airtight containers to avoid pre-adsorption with water vapour. Face masks should be used at continual exposure to extensive dusting.

Note Any details of application possibilities do not free the purchaser from the obligation of performing his own tests on the material supplied by the seller, in order to determine their suitability for the intended processes and purposes. Application, use and processing of the material cannot be controlled by the seller and are thus the sole responsibility of the purchaser.

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