



RXSOL

CHEMO PHARMA INTERNATIONAL

Technical Data Sheet (TDS)

RXSOL-24-8587-003

Molecular Sieve 3A Absorbent and Catalyst

Molecular Sieve 3A

Molecular sieve 3A is a cat-ion exchanged potassium form of A type crystal structure.

The potassium ion is larger than sodium ion, is effectively exchanged in basic 4A type molecular sieve to reduce the pore size -3A0 and it enables selective adsorption depending upon molecular size.

Molecular sieve 3A is used for dehydration streams in liquid phase or vapour phase due to high drying efficiency and minimises the interference of hydrocarbon co-adsorption. Our molecular Sieve exhibits high resistance to attrition and physical damage during service

Typical Technical Data

Parameter 3A-S 3A-G

Shape Pellets Beads Pellets Beads

Size (mm) 3.0 & 1.5 0.5 – 6.0* 3.0 & 1.5 0.5 – 6.0*

Bulk Density (kg/lit.) 0.75 – 0.85 0.64 – 0.70

Water Adsorption Capacity @ 15% RH & 300C (%) 21.5 18.0

Water Adsorption Capacity @ 75%RH & 300C (%) 23.5 21.0

Attrition loss / Abrasion loss (%) <0.15 <0.2

Specific Heat (kcal/kg H₂O) 0.23

Heat of Adsorption (kcal/kg H₂O) 1050

Packing in steel drum (kg) 150-160 125-145

* A set of size can be selected from the above range. e.g 0-5 mm, 1-3 mm, 2-4 mm, 3-5mm etc.

Major Applications: Commercial dehydration of unsaturated hydrocarbon streams, including cracked gas, propylene, propylene butadiene, acetylene; drying polar liquids such as methanol and ethanol, Adsorption of molecules such as NH₃ and HO from a N₂/H₂ flow. Considered a general-purpose drying agent in polar and non-polar media. The 3A structure is particularly effective in dehydrating the inner space of insulating glass window as well as refrigerant gases.

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