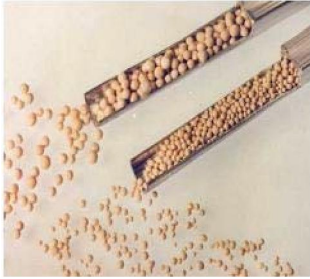



Abstract about Desiccant: Molecular sieve vs. Silica Gel



The purpose of Desiccant is to absorb existing and/or over the storage time entering moisture in a packaging. The type and quantity of the desiccant depends on the climate conditions, the minimum guaranteed durability of the packed product and the packed product itself.

	Molecular Sieve	Silica Gel
		
	(Zeolite)	Silicon dioxide (SiO ₂)
Condition	Spherical, <i>e.g. Molecular Sieve fine</i> Particle size: 0,5 – 1,25 mm Pore diameter: 3 Å	Crystal form, <i>e.g. Silica Gel coarse-grained</i> Particle size: 0,1 – 2,0 mm Pore diameter: 22 Å
Application-area	- for very low humidity in the packaging - use in warm countries, in comparison to Silica Gel the adsorption capacity depends less on temperature.	- if residual humidity in the Packaging is needed (e.g. Gelatine-Capsule) - In climatic zones with high relative humidity

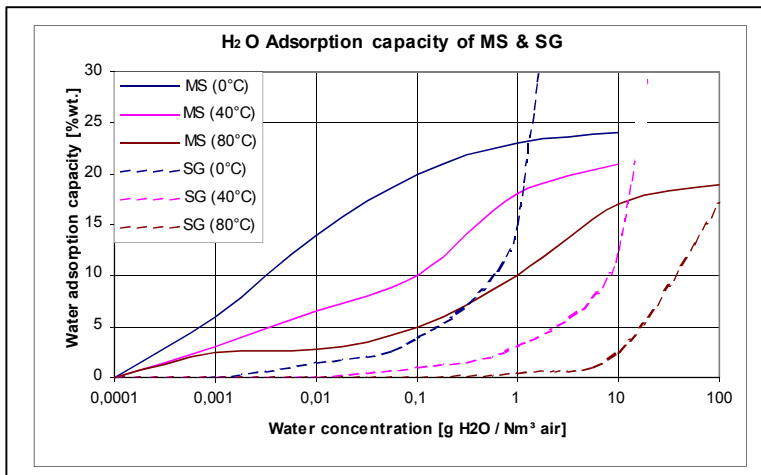
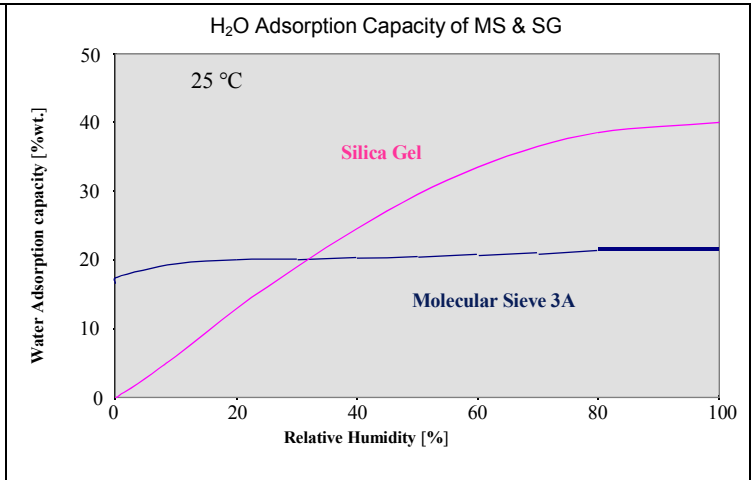
Properties

Molecular Sieve:

Excellent and quick drying even at low temperatures and relative humidities.
Nearly constant moisture absorption

Silica Gel:

Moderate drying adsorption capacity depends more on temperature than MS, increasing absorption capacity with increasing relative humidities



The adsorption capacity of molecular sieve is approx. 20% of the weight and does not depend on the environment humidity.
e.g. 10 g molecular sieve adsorb approx. 2g moisture.

The adsorption capacity of Silica gel depends on the environment humidity. The higher the relative humidity is, (to approx. 80%) the higher the adsorption capacity