

eco mol

3Å molecular sieve



eco mol is a synthetic sodium/potassium aluminosilicate

Thanks to application of a special ion exchange technology and special activation procedure it can efficiently adsorb moisture retained in the IGU (insulating glass unit). It keeps the IGU clean and transparent even at very low temperatures.

eco in

Powsinska 18
02-920 Warsaw, Poland
phone +48 22 651 68 14
fax +48 22 651 81 72
e-mail: office@eco-int.eu
www.eco-int.eu

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Way of functioning

The ion exchange and activation process of a sieve leads to the formation of active pores 3Å diameter. That results in the moisture circulating in the IGU being adsorbed by the sieve. Only about 4% moisture adsorption is enough to block access for molecules bigger than water, for example gas types like argon or nitrogen. Up to 2% of the moisture is adsorbed during IGU production and the rest in the first few hours after IGU has been sealed. The primary humidity of a sieve is about 0.5%.

The adsorbent in the IGU which is leaving the production plant has already had such a moisture load which theoretically doesn't admit to adsorb any other gas than water vapor.

Durability

Durability of an IGU is determined by the amount of humidity penetrating the unit and the amount of moisture which can be bound by the adsorbent.

When the amount of moisture vapor exceeds the dew point, condensation may appear. Depending on the unit construction and the amount of adsorbent used, in case of perfectly sealed unit, the theoretical durability of a unit amounts up to over one hundred years. Small leaks in the IGU can significantly limit the vitality of a glass pane. Full spacers loading with the sieve, extends the working life of the IGU from two up to six times.

Package

eco mol – cartons – 25 kg
eco mol – drums – 150 kg
eco mol – big bag – 600 kg

Storage

eco mol should be stored in dry places at the temperature below 25°C.

Norms

eco mol is produced according to norm (standard) ISO 9001. Final properties are compatible to norm EN 1279-2, 3.

Technical Data

Parameter	Value	Test
Colour	Beige	n.a.
Bulk density [g/l]	750 (+/- 30) g/l	DIN/ISO 787
Adsorption capacity [%]	>19	EN 1279-2
Grain size distribution:		
0.5-0.9 mm	>98%	Self method
1.0-1.5 mm		
Delta T	>30°C	25 g into 25 ml water
L.O.I [%]	<2	DIN 52 294 (950°C, 2 h)
Dust [NTU]	<50	Turbidimeter
Gas desorption [ml]	<50	250 g @70°C

Additional information

Above data correspond with our present knowledge and past experiences. They do not lay a claim on completeness. As a result of the variations in application conditions, the different mechanical conditions of the processing equipment as well as multiplicity of the substrates to be bonded, all liability claims on basis of above data are rejected. Security against possible malfunction can only be achieved by your own tests for the intended application and/or purpose. Our application engineers will gladly advise you.

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