

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

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Product description

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

25 kg cartons,
150 kg drums,
600 kg big bag.

Storage

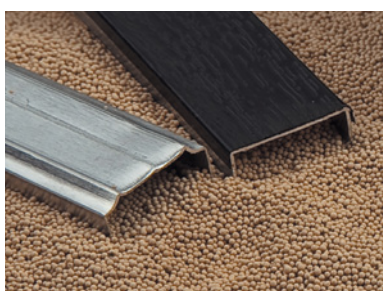
eco mol should be stored in dry places at the temperature below 25°C.

Standards

eco mol is produced according to norm (standard) ISO 9001. Final properties are compatible to norm EN 1279-4:2018.

Certificates

- eco mol has gained certificates from the IFT Rosenheim Institute (nr 60131162),
- Germany and CEBTP/CEKAL Institute (BPI.8.6.0038),
- France and IKATES Laboratory (A 185-6/2007; A 185A-6/2007),
- Test report made by Glass and Ceramics Institute in Krakow.



Technical Data

Parameter	Value	Test
Colour	Beige	n.a.
Bulk density [g/l]	750 (+/- 30)	EN 1279-4
Available Water Adsorption Capacity (AWAC) [% wt]	>15	EN 1279-4
Standard moisture adsorption capacity (Tc) [% wt]	>16	EN 1279-4
Grain size distribution: 0.5-0.9 mm	>98%	EN 1279-4
1.0-1.5 mm		
Delta T [°C]	>30	EN 1279-6
Loss on Ignition (L.O.I at 540 °C) [% wt]	<1.7	EN 1279-4
Dust [NTU]	<50	Turbidimeter
Gas desorption [ml/g]	<0.3	EN 1279-4

Additional information

The above data correspond to our present knowledge and past results. They refer only to laboratory conditions and do not constitute grounds for claiming.

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