

Chemistry. Pure. Efficient.

Purmol™ Moisture Scavenger

Moisture scavenger for CASE applications

Applications

Purmol powder is used in a variety of coatings, adhesives, sealants, and elastomer applications where the removal of unwanted moisture is essential for achieving formulations with the ultimate level of performance.



In each of the following applications, Purmol powder serves as a vital component for top quality formulations:

- One and two-component polyurethane (PUR) coatings, adhesives, or sealants (1K & 2K)
- Metallic pigment coatings (zinc-rich primers, aluminium paints)
- PUR / Epoxy - resins for electrical insulation applications
- PUR, PVC and silicone foams for reaction control
- Silicone and polysulfide coating systems
- Elastomeric rubber production

Purmol powder serves as an additive for polyurethane chemistries to remove unwanted moisture. Purmol adsorbents are synthetic zeolites in powder form with a complex alkali aluminosilicate crystalline structure. The structure contains a vast network of pores that are uniform in size. This allows Purmol products to adsorb molecules selectively based on molecular size and polarity. Purmol products adsorb water, but not solvents, resins, or pigments.

Purmol Products

3Å Purmol Powder

Purmol 3ST powder is potassium (K⁺) ionized, giving it a nominal pore size of 3 angstroms. It is recommended for use in applications where residual moisture needs to be eliminated to prevent defects due to gassing or foaming.

4Å Purmol Powder

Purmol 4ST powder is sodium (Na⁺) ionized, giving it a nominal pore size of 4 angstroms. Purmol 4ST powder combines high adsorption capacity for water and slightly larger molecules, such as CO₂ and smaller hydrocarbons.

Addition of Purmol Adsorbents

Purmol powder selectively adsorbs moisture present at various stages of the formulation process. This moisture can be introduced by the polyol, through the addition of pigments, fillers, and solvents, as well as during the final application to a substrate.

In one-component systems, Purmol powder should be added prior to adding the prepolymer. In two-component systems, Purmol powder is typically added 1.0-3.0 wt% to the polyol component. This must be stirred thoroughly to allow time for the powder to adsorb the water before the addition of the isocyanate.



Purmol Advantages

- Excellent moisture scavenger with rapid and high adsorption capacity
- Adsorbs small polar molecules while excluding larger molecules
- Physical reaction with no byproducts formed
- Holds water even at high temperatures, will not release over time
- Uniform particle size and ion exchange deliver consistent results

Packaging	
Purmol 3ST	20kg Valve Sacks, 105kg Drums, 480kg Big Bags, 545kg Big Bags
Purmol 4ST	20kg Valve Sacks

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