

Aero Alum - Activated Alumina Granules

Activated Alumina is a reliable filtering material for the elimination of odours and gas-based impurities. Its applications include wood processing industry, hospitals, sewage treatment plants, museums, petrochemical industry and offices. The product consists of activated aluminium oxide (Al₂O₃) impregnated with potassium permanganate (KMnO₄). It is produced in pellets, and is purple in colour. The pellets are inorganic, non-toxic and non-flammable.

Aerofil Models

Model: AA Oxide

Potassium permanganate Impregnation

Offered in Granules

Excellent Odor Removal



Media Features and Technical Details

The pellets are based on the two oldest proven methods for management of gas concentration: sorption and oxidation. The elimination of impurities starts with adsorption and absorption of molecules. After this, the potassium permanganate acts as an oxidiser and chemically destroys the accumulated impurities. This chemical oxidising is called controlled oxidising as the method based on pellet form converts sulphur-containing gases, such as hydrogen sulphide and sulphur oxide into inorganic non-volatile sulphides and sulphates. These materials are retained in the porous drop structure. Oxidising involves no high temperatures or combustion, contrary to burning oxidising methods. This makes it a unique system. Aluminium oxide adsorbs and absorbs both humidity and chemical impurities. The adsorbed impurities accumulate on the external surface and interfaces of the pellets, while absorbed impurities penetrate into the core of the pellets. Humidity decomposes the permanganate, which in turn oxidises both the adsorbed and the absorbed chemical impurities. The permanganate goes through several oxidising stages before it is depleted and turns into brown manganese dioxide. As the amount of permanganate on the external surface of the pellet is reduced as a result of the indirect oxidising reaction, the surface colour of the pellet begins to change. Gradually it turns from light to dark brown with the colour proceeding from the surface into the core as the chemical oxidising capacity is depleted. In an analysis performed on the filtering material when the pellets turn brown for the first time, it can be seen that they still have about 80% of their capacity left.

Technical Properties ▼

Size : 3 ~ 5mm pellets

Material : Activated Aluminium

Pore Volume : 0.65 cc/gm

Ethylene Molecule Absorber Capacity : NLT 16.3%

Hardness : Minimum 80% w/w

Bulk Density : Minimum 0.85 ~ 0.9 gram/cm³

Moisture Content : Maximum 15% w/w

Impregnation : potassium permanganate 4% ~ 12%

Package Size : 25 Kg per bag

Application : filtering material or acidic gases

All data are average indicative values with usual manufacturing and testing tolerances. We reserve the right to modify performance data without prior notices due to the constant technical improvement.

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