

SLOW-RELEASE GELS & SOLID ADSORBENTS · 8-12% KMnO₄ PURPLE
CHEMISORPTION SPHERES

Potassium Permanganate Activated
Alumina Media

Industrial 3–5mm purple KMnO₄-impregnated activated alumina spheres for air purifier filters, HVAC scrubbers, and formaldehyde chemisorption packs.

PATHWAY $\text{Al}_2\text{O}_3 + \text{KMnO}_4 \text{ (8-12\%)} + \text{HCHO} \rightarrow \text{MnO}_2 + \text{CO}_2$



TECHNICAL SPECIFICATIONS & OPERATING PARAMETERS

Factory QC Standard · Verified Batch Parameters

KMnO ₄ Impregnation Content	8%, 10%, or 12% (±0.5% wt/wt customizable per B2B order)
Particle Diameter & Bulk Density	2–4mm / 3–5mm / 4–6mm spheres; Bulk Density 0.75 – 0.85 g/cm ³
Specific Surface Area & Crush Strength	≥ 280 m ² /g BET surface area; Crush Strength ≥ 120 N/particle
Target Gases	Formaldehyde (HCHO), H ₂ S, SO ₂ , NO _x , Ethylene (C ₂ H ₄), Organic Acids
B2B Packaging	1kg canisters, 25kg foil-sealed fiber drums, 500kg/1000kg jumbo bags
Product Grade	High-Capacity Chemisorption & Sustained-Release Grade
Specific Gravity / Density	0.48 – 0.78 g/cm ³ (Bulk apparent density)
Flash Point & VOC Content	Non-flammable / Non-combustible under normal indoor conditions · VOC: 0 g/L (Zero VOC emission)
Application Method	Fill into honeycomb filter frames, V-bank trays, or breathable non-woven pouches
Transport & Customs HS Code	Non-Dangerous Goods (Non-DG for Sea/Air) · HS 3802.10.1000
Quality & Test Compliance	ASTM D2867 / GB/T 12496.8 Iodine & Gas-Phase HCHO Chemisorption (≥ 93.5% enclosed-cavity HCHO & odor capture (60–90 day cycle))