

Product Bulletin for Purafil CP Blend Media

Purafil CP Blend Media is made from an equal mix (by volume) of Purafil Chemisorbant and Purakol media. Purafil Chemisorbant media is generally spherical, porous pellets formed from a combination of activated alumina and other binders, suitably impregnated with potassium permanganate (KMnO₄). The sodium permanganate is applied during pellet formation such that it is uniformly distributed throughout the pellet volume and is completely available for reaction with target gases. Purakol media consists of extruded cylindrical, porous pellets formed from a premium virgin activated carbon. No binders are used allowing the carbon completely available for adsorption of target gases.



Purafil CP Blend Media has been specially engineered to provide the highest overall performance against multiple contaminants. Purafil Chemisorbant removes contaminant gases by chemisorption using adsorption, absorption, and chemical reaction (oxidation). Harmful gases are trapped within the pellet and converted into harmless solids which remain in the pellet, eliminating the possibility of desorption and release back into the environment. Purakol media removes contaminant gases with high efficiencies and capacities by means of physical adsorption (physisorption). It is very effective against medium-to-high molecular weight compounds, and chemical contaminants with low volatility.

Purafil CP Blend Media demonstrates a higher working capacity for broad-spectrum control of odorous and corrosive gases including hydrocarbons, volatile organic compounds (VOCs), oxides of sulfur, formaldehyde, nitrogen oxides, hydrogen sulfide, and lower molecular weight aldehydes and organic acids. Purafil CP Blend media can be used when space within a Purafil chemical filtration system is limited but these two individual media are indicated; combining two stages of filtration into one. Purafil CP Blend is also recommended as a polishing media in odor control and corrosion control applications. Purafil CP Blend media provides the following minimum removal capacities:

Removal Capacities

| Contaminant Gas | g/cc | Weight % * |
|--|--------|------------|
| Sulfur dioxide (SO ₂) | 0.0302 | 4.72 |
| Nitrogen dioxide (NO ₂) | 0.0608 | 9.50 |
| Toluene (C ₆ H ₅ CH ₃) | 0.0636 | 10.38 |

* 100 pounds (45.36 kg) of Purafil CP Blend media will remove a minimum of 4.72 pounds (2.14 kg) of sulfur dioxide.

Application Guidelines

| | |
|-------------|---|
| Temperature | -4°F to 125°F (-20°C to 51°C) |
| Humidity | 10 - 95% RH |
| Air Speed | 60 - 500 fpm (0.30 - 2.54 m/s) |
| Performance | 99.5% (min) initial removal efficiency in Purafil systems |

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Specifications

| | |
|-----------------------------|--|
| Purafil CP Blend | |
| Bulk density | 40 lbs/ft ³ (0.64 g/cc) ±5% |
| Purafil Chemisorbant | |
| Potassium permanganate | 4% (min) as KMnO ₄ |
| Moisture | 35% (max) |
| Crush strength | 35-70% |
| Abrasion | 4.5% (max) |
| Bulk density | 50 lb/ft ³ (0.8 g/cc) ±5% |
| Nominal pellet diameter | 1/8" (3.175 mm) |
| Purakol | |
| CTC activity | 60% (min) |
| Hardness number | 95 (min) |
| Moisture | 2.0% (max) |
| Ash content | 12% (max) |
| Bulk density | 30 lb/ft ³ (0.48 g/cc) ±5% |
| Nominal pellet diameter | 0.16" (4 mm) |

Quality Control

Each lot of Purafil Chemisorbant and Purakol media used in Purafil CP Blend media is thoroughly tested prior to shipment according to the procedures described in Purafil's ISO 9001 Quality Systems Manual.

Media Life Analysis

Samples of Purafil CP Blend media should be sent on a regular basis to the Purafil laboratories for testing to determine remaining media life. This provides for scheduled maintenance, avoids downtime, and assures ongoing protection for processes, products, and personnel.

Disposal

Purafil CP Blend media should be disposed of according to local, state, and federal guidelines.

Purafil CP Blend media is UL classified for flammability.