

# Product Bulletin for

## Purafil Select CP Blend Media

**Purafil Select CP Blend Media** is made from an equal mix (by volume) of Purafil Select and Purakol media. Purafil Select media is generally spherical, porous pellets formed from a combination of activated alumina and other binders, suitably impregnated with potassium permanganate ( $\text{KMnO}_4$ ). 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 Select CP Blend Media** has been specially engineered to provide the highest overall performance against multiple contaminants. Purafil Select 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 Select 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 Select 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 Select CP Blend is also recommended as a polishing media in odor control and corrosion control applications. Purafil Select CP Blend media provides the following minimum removal capacities:

### Removal Capacities

Contaminant Gas	g/cc	Weight % *
Sulfur dioxide ( $\text{SO}_2$ )	0.0387	6.85
Nitrogen dioxide ( $\text{NO}_2$ )	0.0998	15.60
Toluene ( $\text{C}_6\text{H}_5\text{CH}_3$ )	0.0636	10.38

\* 100 pounds (45.36 kg) of Purafil Select CP Blend media will remove a minimum of 6.85 pounds (3.11 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

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

### Quality Control

Each lot of Purafil Select and Purakol media used in Purafil Select 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 Select 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 Select CP Blend media should be disposed of according to local, state, and federal guidelines.

Purafil Select CP Blend media is UL 900 classified for flammability.