purafil
Filtration Group®

PRODUCT BULLETIN

PURAFIL SELECT MEDIA (CHS)

Purafil Select media provides the following minimum removal capacities:

REMOVAL CAPACITY

CONTAMINANT GAS	g/cc	WEIGHT%*
Hydrogen sulfide (H_2S)	0.1120	14.00
Sulfur dioxide (SO_2)	0.0560	7.00
Nitrogen dioxide (NO_2)	0.1684	20.96
Nitric oxide (NO)	0.0394	4.93
Formaldehyde (HCHO)	0.0200	2.50

* 100 pounds (45.36 kg) of Purafil Select media will remove a minimum of 14 pounds (6.35 kg) of hydrogen sulfide.



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

Purafil Select Media (CHS) consists of generally spherical, porous pellets formed from a combination of activated alumina and other binders, suitably impregnated with potassium permanganate ($KMnO_4$). The potassium 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.

Purafil Select Media has been specially engineered to provide a superior oxidation potential thus assuring the highest overall performance. The chemisorptive process removes contaminant gases by means of 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.

Purafil Select Media demonstrates a higher working capacity for broad-spectrum contaminant control in applications where multiple contaminant gases are present such as: sulfur and nitrogen oxides in outdoor air, automobile / diesel exhaust, formaldehyde and other emissions from building materials and office furnishings, and human bioeffluents. This media is often used along with Purakol media to provide a very broad-spectrum contaminant control solution.

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Quality Control

Each lot of Purafil Select media is thoroughly tested prior to shipment according to the procedures described in Purafil's ISO 9001 Quality Systems Manual. This testing includes but is not limited to: bulk density, potassium permanganate content, moisture content, crush strength, and abrasion.

Media Life Analysis

Samples of Purafil Select 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 should be disposed of according to local, state, and federal guidelines.

Purafil Select media is UL classified for flammability.

SPECIFICATIONS

Potassium permanganate	8% as $KMnO_4$
Moisture	28% (max)
Crush strength	45-80%
Abrasion	4.5% (max)
Bulk density	48 lb/ft^3
Nominal pellet diameter	1/8" (3.175 mm)

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