purafil
Filtration Group®

PRODUCT BULLETIN

PURAFIL SP MEDIA

Purafil SP 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)	0.2229	31.85
Nitric oxide (NO)	0.0645	8.63
Formaldehyde (HCHO)	0.020	2.50

* 100 pounds (45.36 kg) of Purafil SP 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 SP Media consists of generally spherical, porous pellets formed from a combination of activated alumina and other binders, suitably impregnated with sodium permanganate ($NaMnO_4$). 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.

Purafil SP Media has been specially engineered to provide the highest oxidation potential available thus assuring the highest overall performance. The chemisorptive process removes contaminant gases by means of adsorption, 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 SP Media demonstrates a higher working capacity for broad-spectrum control in applications where multiple contaminant gases are present.

SP media also offers a higher working capacity for broad-spectrum control for sewerage gases in water / wastewater treatment applications, including hydrogen sulfide, sulfur dioxide, aldehydes, and many organic compounds. This media is most often used in conjunction with other Purafil media as a polishing filter to reduce the levels of odorous gases to below their detection limits.

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Quality Control

Each lot of Purafil SP 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, sodium permanganate content, moisture content, crush strength, and abrasion.

Media Life Analysis

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

Purafil SP media is UL classified for flammability.

SPECIFICATIONS

Permanganate	12% (min) as $NaMnO_4$
Moisture	28% (max)
Crush strength	45-80%
Abrasion	4.5% (max)
Bulk density	51 lb/ft^3
Nominal pellet diameter	1/8" (3.175 mm)

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