Product Bulletin for
Purafil SP Media

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. Purafil SP media provides the following minimum removal capacities:

Removal Capacities

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	4

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

Specifications

Sodium permanganate	12% (min) as $NaMnO_4$
Moisture	35% (max)
Crush strength	35-70%
Abrasion	4.5% (max)
Bulk density	50 lb/ft³ (0.8 g/cc) ±5%
Nominal pellet diameter	⅛" (3.175 mm)

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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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.

purafil
Filtration Group®

PRODUCT BULLETIN

THE PURAWARD FIBER

The PuraWard Fiber technology (PWF) is a high efficiency fiber embedded with a patent-protected antimicrobial technology. PuraWard fiber has been successfully applied to air filters, textiles, and respiratory masks.

Function: PuraWard Fiber products immediately exhibit antibacterial and antiviral properties as copper and silver ions jointly attack the viral and bacterial cells. Copper ions weaken the amino acids of the cell wall, allowing silver to invade the cell. The copper and silver then react with key enzymes to cause sterilization, suffocation, and starvation of the pathogen.

Bacteria: Eliminates 99.96% of the following tested bacteria after one hour of contact with the surface:
- Methicillin-Resistant Staphylococcus Aureus
- Streptococcus pyogeneses
- Haemophilus influenza

Properties:
- PuraWard Fiber can be subjected to single or multiple uses over long durations.
- 50/50 fiber ratio (Regular/PuraWard) in an air filter provides up to 99.99% effectiveness
- Unique technology increases effectiveness after machine washing.

Safety:
- Non-hazardous
- No leaching
- No off-gassing
- No transdermal effects

Virus: Eliminates up to 99.98% of the following tested viruses after five minutes of contact with the surface:
- Influenza A (H1N1), (H3N2)
- Avian influenza A (H9N2), (H5N1)
- Swine influenza A (H1N1)
- Equine influenza (H3N8)
- Influenza B

SPECIFICATIONS

Denier	2.4 or 1.7
Tenacity (g/cn)	4.5 g/cn
Elongation (%)	40 %
Finish level (%)	0.18 %
CPLI	8
Cut length (mm)	38, 51 or 60 mm

ORDER INFORMATION

Quantity	5 tons