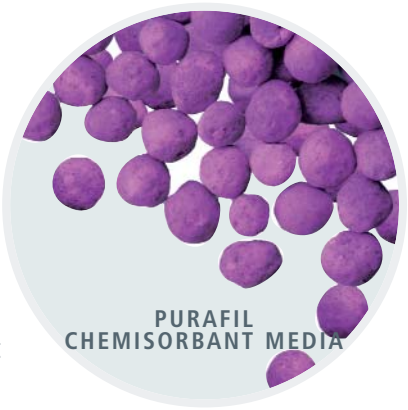
PRODUCT SPECIFICATION 4

# PURAFIL® CHEMISORBANT MEDIA




**PURAFIL CHEMISORBANT MEDIA** shall consist of manufactured, generally spherical, porous pellets. Pellets shall be formed from a combination of activated alumina and other binders, suitably impregnated with potassium permanganate to provide optimum adsorption, absorption and oxidation of a wide variety of gaseous contaminants. The potassium permanganate shall be applied during pellet formation, such that the impregnant is uniformly distributed throughout the pellet volume and is totally available for reaction.

## THE CHEMISORPTIVE PROCESS

The Purafil chemisorptive process shall remove contaminant gases by means of adsorption, absorption, and chemical reaction. Gases shall be trapped within the pellet where oxidation changes the gases into harmless solids, eliminating the possibility of desorption.

## REMOVAL CAPACITY

Purafil® Chemisorbant Media shall meet the following removal capacities:

- **HYDROGEN SULFIDE:** 8% minimum by weight
- **SULFUR DIOXIDE:** 4.0% minimum by weight
- **NITROGEN DIOXIDE:** 10% minimum by weight
- **NITRIC OXIDE:** 2.85% minimum by weight
- **FORMALDEHYDE:** 1.4% minimum by weight

For example, 100 pounds (45.36 kg) of Purafil® Chemisorbant Media will remove a minimum of 8 pounds (3.6 kg) of hydrogen sulfide.

## PHYSICAL PROPERTIES

Purafil® Chemisorbant Media shall have the following physical properties:

- **MOISTURE CONTENT:** 35% Maximum
- **CRUSH STRENGTH:** 35% - 70%
- **ABRASION:** 4.5% Maximum
- **BULK DENSITY:** 50 lbs/ft$^3$ (0.8 g/cc) $\pm$5%
- **NOMINAL PELLET DIAMETER:** 1/8" (3.175 mm)
- **POTASSIUM PERMANGANATE CONTENT:** 4% Min.

## QUALITY CONTROL

Purafil® Chemisorbant Media shall be submitted to the following quality control tests before shipment:

- Moisture Content
- Crush Strength
- Abrasion
- Bulk Density
- Potassium Permanganate Content

## APPLICATION GUIDELINES

Purafil® Chemisorbant Media shall perform effectively under the following conditions and guidelines:

- **TEMPERATURE:** -4° F to 125° F (-20° C to 51° C)
- **HUMIDITY:** 10 - 95% RH
- **AIRFLOW:** Purafil® Chemisorbant Media shall be effective in commercial and industrial systems with airflows ranging from less than 25CFM (42.5 m$^3$/hr) to over 100,000 CFM (169,920 m$^3$/hr) and with velocities from 60 FPM to 500 FPM (0.30 to 2.54 m/s).
- **MEDIA PERFORMANCE:** Purafil® Chemisorbant Media shall be designed for 99.5% min. removal efficiency in Purafil systems.
- **MEDIA LIFE:** Regular media samples of Purafil® Chemisorbant Media shall be taken for projecting remaining media life, providing scheduled maintenance, and ensuring performance.

*ADDITIONAL INFORMATION ON BACK*

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# PURAFIL® CHEMISORBANT

## ADVANTAGES

- Simple media replacement
- Can be tested for remaining service life
- UL Classified Class 1
- Non-toxic and non-hazardous
- Will not support bacterial or fungal growth

## TARGET CONTAMINANTS

- Oxides of sulfur
- Hydrogen sulfide

## INSTALLATION & DISPOSAL REQUIREMENTS

- **INSTALLATION:** Installers shall use dust masks, safety goggles, and rubber gloves.
- **DISPOSAL:** Spent Purafil® Chemisorbant Media should be disposed of according to local, state and federal guidelines.

PURAFIL
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