PRODUCT SPECIFICATION 4

PURAFIL® SP MEDIA

PURAFIL SP MEDIA demonstrate a higher working capacity for broad-spectrum oxidation of contaminants in actual field condition, where multiple gas challenges are present. The Purafil SP Series has been specially engineered to contain more permanganate (the active ingredient) for increased removal capacity, allowing the media to remain more available for removal of target gases.

MEDIA SPECIFICATION

Purafil® SP Media (patent-pending) shall consist of manufactured, generally spherical, porous pellets. Pellets shall be formed from a combination of activated alumina and other binders, suitably impregnated with sodium permanganate to provide optimum adsorption, absorption and oxidation of a wide variety of gaseous contaminants. The sodium 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® SP Media shall meet the following removal capacities:

- **HYDROGEN SULFIDE:** 14% minimum by weight
- **SULFUR DIOXIDE:** 7.0% minimum by weight
- **NITROGEN DIOXIDE:** 15.0% minimum by weight
- **NITRIC OXIDE:** 6.0% minimum by weight
- **FORMALDEHYDE:** 4.0% minimum by weight

For example, 100 pounds (45.36 kg) of Purafil® SP Media will remove a minimum of 14 pounds (6.35 kg) of hydrogen sulfide.

PHYSICAL PROPERTIES

Purafil® SP 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)
- **SODIUM PERMANGANATE CONTENT:** 12% Min.

QUALITY CONTROL

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

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

APPLICATION GUIDELINES

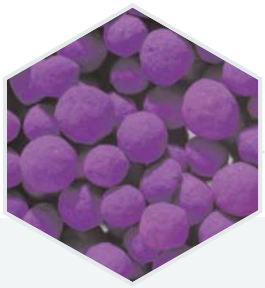
Purafil® SP Media shall perform effectively under the following conditions and guidelines:

- **TEMPERATURE:** -4° F to 125° F (-20° C to 51° C)
- **HUMIDITY:** 10 - 95% RH
- **AIRFLOW:** Purafil® SP 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® SP Media shall be designed for 99.5% min. removal efficiency in Purafil systems.
- **MEDIA LIFE:** Regular media samples of Purafil® SP Media shall be taken for projecting remaining media life, providing scheduled maintenance, and ensuring performance.

ADDITIONAL INFORMATION ON BACK

2654 Weaver Way Doraville, Georgia, 30340, U.S.A. tel: (770) 662-8545 (800)-222-6367 www.purafil.com

PURAFIL® SP



ADVANTAGES

- Will not desorb
- 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
- Formaldehyde
- Nitric oxide
- Hydrogen sulfide
- Lower molecular weight aldehydes and organic acids

INSTALLATION & DISPOSAL REQUIREMENTS

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

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