

# PRODUCT SPECIFICATION 4

## PURAFIL® TRIPLE-BLEND MAKEUP AIR MEDIA




**PURAFIL TRIPLE-BLEND MAKEUP AIR MEDIA** remove the widest variety of odors and gases from applications where jet fuel fumes, diesel exhaust and automobile emissions are present. Purafil Triple-Blend Makeup Air Media contains a 50:25:25 blend, respectively of Puracarb, Purafil SP and Purakol engineered dry-chemical media. Each type of media targets a particular pollutant specific to engine exhaust - Purafil SP for removal of nitric oxide and Puracarb for removal of nitrogen dioxide and sulfur dioxide - 95% of the total gaseous contaminants found in engine exhaust. Purakol and Purafil SP, working in conjunction, remove most of the remaining contaminants.



PURAFIL TRIPLE-BLEND MEDIA

### MEDIA SPECIFICATION

Purafil® Triple-Blend Makeup Air Media shall consist of a mix of Purafil® SP media, Purakol® activated carbon media and Puracarb® media.

Purafil® SP 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 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 Purakol® Media shall be an activated carbon for the control of hydrocarbons with a high surface area available for adsorption.

The Puracarb® Media shall be composed of carbon, alumina and other binders. Puracarb® pellets are impregnated 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.

### PHYSICAL PROPERTIES

Triple-Blend Makeup Air Media is a 50:25:25 blend, respectively, of Purafil SP media, Puracarb media and Purakol media. The overall bulk density of Makeup Air Media is **42-45 lbs/ft<sup>3</sup> ±5%**.

#### PURAFIL SP MEDIA

- **BULK DENSITY:** 50 lbs/ft<sup>3</sup> (0.8 g/cc) ±5%
- **MOISTURE CONTENT:** 35% Maximum
- **CRUSH STRENGTH:** 35% - 70%
- **ABRASION:** 4.5% Maximum
- **NOMINAL PELLET DIAMETER:** 1/8" (3.175 mm)
- **SODIUM PERMANGANATE CONTENT:** 12% Minimum

#### PURACARB MEDIA

- **BULK DENSITY:** 45 lbs/ft<sup>3</sup> (0.72 g/cc) ±5%
- **MOISTURE CONTENT:** 35% Maximum
- **CRUSH STRENGTH:** 35% - 70%
- **ABRASION:** 4.5% Maximum
- **NOMINAL PELLET DIAMETER:** 1/8" (3.175 mm)

### PURAKOL MEDIA

- **BULK DENSITY:** 43 lbs/ft<sup>3</sup> (0.69 g/cc) ±5%
- **MOISTURE CONTENT:** 3%
- **CTC:** 55 Minimum
- **NOMINAL PELLET DIAMETER:** 1/8" (3.175 mm)
- **BASE MATERIAL:** Activated carbon

### APPLICATION GUIDELINES

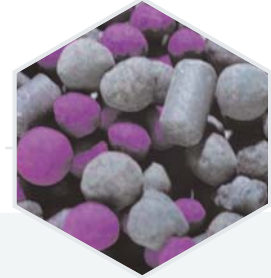
Purafil® SP Media shall perform effectively under the following conditions and guidelines:

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

### ADDITIONAL INFORMATION ON BACK



# PURAFIL® TRIPLE-BLEND MAKEUP AIR MEDIA



## ADVANTAGES

- Non-flammable and non-hazardous
- UL Classified Class 1
- Specifically engineered to eliminate all chemical components of fuel combustion
- Can be used in place of a multi-pass media system
- Media life analysis projects remaining media life for proper maintenance and optimum media performance

## TARGET CONTAMINANTS

- Nitrogen dioxide
- Nitric oxide
- Sulfur dioxide
- Organic acids
- Ozone
- Other VOCs
- Lower molecular weight aldehydes and hydrocarbons

## INSTALLATION & DISPOSAL REQUIREMENTS

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