

# Product Bulletin for **Purafil CSO Media**

**Purafil CSO Media** consists of generally spherical, porous pellets formed from a combination of activated carbon, activated alumina and other binders, suitably impregnated to provide an enhanced removal capacity for chlorine (Cl<sub>2</sub>) and sulfur dioxide (SO<sub>2</sub>). Impregnants are applied during pellet formation such that they are uniformly distributed throughout the pellet volume and are completely available for reaction with target gases.



**Purafil CSO Media** has been specially engineered with a high reserve alkalinity thus assuring the best overall performance. The chemisorptive process removes contaminant gases by means of adsorption, absorption, and chemical reaction (neutralization). 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 CSO Media** demonstrates a higher working capacity for enhanced control of chlorine and sulfur dioxide in applications such as pulp & paper mills, refineries, chemical plants, and wastewater treatment for the protection of sensitive electronic process control equipment and to protect plant personnel in case of an accidental spill or release. Purafil CSO media provides the following minimum removal capacities:

### Specifications

|                         |                                       |
|-------------------------|---------------------------------------|
| Moisture                | 35% (max)                             |
| Crush strength          | 35-70%                                |
| Abrasion                | 4.5% (max)                            |
| Bulk density            | 45 lb/ft <sup>3</sup> (0.72 g/cc) ±5% |
| Nominal pellet diameter | 1/8" (3.175 mm)                       |

### Removal Capacities

| Contaminant Gas                   | g/cc   | Weight % * |
|-----------------------------------|--------|------------|
| Sulfur dioxide (SO <sub>2</sub> ) | 0.0720 | 10.0       |
| Chlorine (Cl <sub>2</sub> )       | 0.0720 | 10.0       |

\* 100 pounds (45.36 kg) of Purafil CSO media will remove a minimum of 10 pounds (4.53 kg) of sulfur dioxide.

### 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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## **Purafil CSO Media**

### **Quality Control:**

Each lot of Purafil CSO 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, impregnation level, moisture content, crush strength, and abrasion.

### **Media Life Analysis:**

Samples of Purafil CSO 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 CSO media is non-toxic and non-hazardous as supplied. However, in all cases spent Purafil CSO media should be disposed of according to local, state, and federal guidelines.

Purafil CSO media is UL classified for flammability.