



ProGuard 800 Media

ProGuard 800 is pelletized carbon based on bituminous coal and is impregnated to remove base pH gases from the air. It works to remove these corrosive gases utilizing chemisorption and is routinely used in HVAC systems in chemical plants, blue print shops, animal labs and zoos.

MEDIA COMPOSITION

ProGuard 800 carbon has a very high surface area: the equivalent of 100 football fields of available surface area per one pound of media. The acid impregnate is evenly distributed throughout the pellet so that it is available for reaction with contaminant gases as they pass through. This makes the media effective at removing these gases down to very low parts per billion levels.

MEDIA ADVANTAGES

- *Low dust*
- *Very effective for high pH gases*
- *Nontoxic and nonhazardous*
- *Uniform size*
- *Easy disposal*

TARGET CONTAMINANTS AND THE REMOVAL PROCESS

Contaminants are removed by adsorption and chemisorption. Odorous gases are chemically changed as they pass through the pellet utilizing the full capacity. Common contaminants include ammonia (NH₃) and low molecular weight amines.

ADDITIONAL MEDIA

ProMark provides a range of media that covers all gas phase filtration requirements. **ProGuard 100** is designed for ethylene and general odor control. **ProGuard 200** is designed for toxic and corrosive gases. **ProGuard 400** removes chlorine gas. **ProGuard Blend** combines ProGuard 200 or 300 and carbon for general odor control over the greatest range of gases. **ProGuard 600** is virgin, coconut shell based, granular carbon effective at removing lower molecular weight VOCs and for general odor control. **ProGuard 700** is activated coal based carbon for general odor control. **ProGuard 900** controls acid gases. **Dry 208** desiccant replaces any alumina based desiccant media for air or liquid drying. The right media will be selected to address the specific need based upon contaminant gases present, concentration levels, airflow requirements, environmental concerns and room design considerations.

YOUR COMPLETE SOURCE FOR GAS PHASE FILTRATION

- *Media for all types of applications (KMnO₄ on alumina, plain carbon, impregnated carbon)*
- *Equipment design and supply*
- *Laboratory support, media testing, coupon analysis*
- *Monitoring instruments*
- *Technical support for application and design*



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CHEMICAL CAPACITY

Chemical capacity of **ProGuard 800** carbon varies with the specific gas contaminant being adsorbed. In general, the capacity for ammonia is 16% by weight, for 1,3 benzenediamine 7.5%, and for triethanolamine is 8%.

PHYSICAL PROPERTIES

ProGuard 800 shall have the following physical properties:

- **Particle Sizes** 4 mm diameter (3.5-6.5 min. long)
- **Moisture Content** 15% maximum
- **Hardness, Ball Pan** ≥ 95 (ASTM D3802-79)
- **Apparent Density** 42 lbs/ft³ (0.67 g/cc) *43.7 lbs/ft³*
- **Carbon Tetrachloride Activity** 60 min. *0.70 g/mL of CCl₄*

QUALITY CONTROL

Quality control is maintained by monitoring the physical properties and chemical capacities and ensuring they fall within specifications.

APPLICATION GUIDELINES

ProGuard 800 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** 60 FPM to 500 FPM in commercial and industrial systems
- **Media Performance** ProGuard 800 shall be designed for 99.5% min. removal efficiency when new in properly designed systems.
- **Media Life** In order to determine ProGuard 800 media life, periodic samples shall be taken and returned to the factory for analysis. The results of testing make it possible to project changeout intervals and ensure media performance.

INSTALLATION AND DISPOSAL REQUIREMENTS

Installers shall use dust masks, safety goggles, and rubber gloves. Spent ProGuard media should be disposed of according to local, state and federal guidelines.

PACKAGING

ProGuard 800 carbon media is packaged in 55 lb bags and is also available in 1,000 lb bulk sacks.

ADDITIONAL INFORMATION AND RELATED EQUIPMENT

- **PMA Media Selection Chart** - lists specific gases that are controlled by ProGuard 200 media (potassium permanganate on alumina) as well as gases controlled by ProGuard 700 carbon and other media, either alone or in a blend.
- **PMA 12 & 18 Media Modules** - refillable steel, standardized modules that hold the ProGuard media for use in housings.
- **PMD 12 & 18 Media Modules** - disposable modules that are filled at the factory with any of the ProGuard media.
- **PMA Trays** - refillable steel trays that hold media for installation in various housings.
- **Honeycomb Disposables** - directly replace refillables and can be filled with any of the ProGuard media.
- **Carbon Bonded Disposables** - activated carbon in a bonded block disposable filter, suitable for high purity applications; more carbon per panel than a comparable loose fill. Eliminates metal and labor to empty and fill metal trays.