

FLUEPAC® MC+

Powdered Activated Carbon

Applications



Flue Gas



Environmental Air

Description

Fluepac MC+ is a powdered activated carbon product impregnated with a proprietary ingredient to enhance mercury capture in flue gas treatment applications.

Fluepac MC+ is specially designed to enhance mercury capture in flue gas streams. Existing combustion or incineration systems can be quickly and inexpensively retrofitted to permit the addition of Fluepac MC+. This results in a treatment process that is simple to implement, reliable, and cost effective. Fluepac MC+ is injected directly into the flue gas stream and is easily removed by existing particulate control devices. Fluepac MC+ can be landfilled with the ash as a non-hazardous material. In addition, this product has proven to be concrete-friendly, allowing some customers to continue or recapture the sale of activated carbon laden fly ash.

Fluepac MC+ has been proven to be particularly effective for utilities burning Powder River Basin (PRB) coals. Utilities burning these low sulfur, low chlorine content coals typically have flue gas streams containing mercury in its elemental form. Fluepac MC+ can be used to promote the oxidation of mercury without the use of front end boiler additives such as halogen salts. Typical performance improvement using Fluepac MC+ is illustrated in Figure 1. As shown, Fluepac MC+ greatly reduces the amount of carbon needed to achieve efficiencies of above 70%.

Some typical mercury and dioxin control applications for Fluepac MC+ include:

- Coal-fired power plants
- Cement kilns
- Industrial boilers
- Municipal waste combustors
- Hazardous waste combustors
- Hospital waste incinerators

Features / Benefits

- Large number of high energy adsorption pores
- Good transport pore structure
- Concrete-friendly product
- Excellent flowability and minimal volatile content
- High adsorption capacity for many pollutants
- Effluent mercury levels can be reduced by over 95%
- Rapid adsorption kinetics lead to low required contact times
- Product has a high ignition temperature which permits use over a wide temperature range
- Safe bulk storage

Specifications

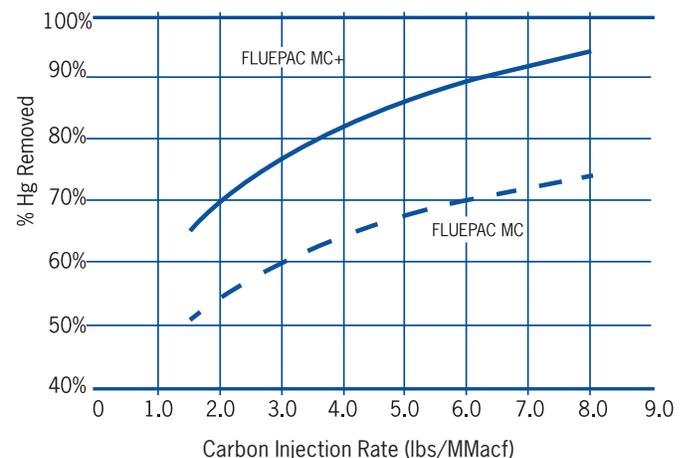
Specifications	Fluepac MC+
Moisture, as packed by Weight	8% (max)
Screen Size by weight, U.S. Sieve Series	
<100 US Mesh	100% (min)
<325 US Mesh	95% (min)

Typical Properties*

Typical Properties*	Fluepac MC+
Iodine No.	400–600 mg/g
Apparent Density (tamped)	0.4–0.8 g/cc
Ignition Temperature	>350°C

*For general information only, not to be used as purchase specifications.

Figure 1: Typical Performance Improvement Associated with Fluepac MC+



Data taken from two different utilities in the western US burning PRB coals

Safety Message

Wet activated carbon can deplete oxygen from air in enclosed spaces. If use in an enclosed space is required, procedures for work in an oxygen deficient environment should be followed.

1.800.4CARBON calgoncarbon.com

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