

# FLUEPAC® MC MAXX

Powdered Activated Carbon

## Applications



Flue Gas



Environmental Air

## Description

Fluepac MC MAXX is a specially formulated product that enhances mercury capture in flue gas treatment applications. Due to its surface area and pore volume, Fluepac MC MAXX is a very effective solution for removal of many flue gas contaminants. Fluepac MC MAXX performs exceptionally well with boiler front end coal additives such as calcium bromide and has demonstrated a 50% reduction in mercury treatment costs when compared to standard products.

Powdered activated carbon (PAC) injection is currently recognized as the Best Available Technology (BACT) by the EPA for mercury removal from flue gas. Many contaminants can be captured by injecting Fluepac MC MAXX directly into the flue gas stream. Fluepac MC MAXX is designed to consistently deliver low level flue gas emissions over a wide range of temperatures. Fluepac MC MAXX is non-hazardous and can be effectively removed through existing particulate devices, captured with ash, then sold or disposed of in a landfill.

Some typical mercury and dioxin control applications for Fluepac MC MAXX 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%
- Requires low contact time due to rapid adsorption kinetics
- Can be used over a wide range of temperatures
- Low carbon injection rates to further reduce costs through
  - 1) Fewer deliveries required
  - 2) Smaller injection systems
  - 3) Lower system wear and tear
  - 4) Improved on-site logistics
  - 5) Less powdered activated carbon in the fly ash to increase the potential for concrete use

## Specifications

	Fluepac MC MAXX
Moisture, as packed by Weight	8% (max)
Sieve Size by volume (laser analysis)	
<100 US Mesh	100% (min)
<325 US Mesh	95% (min)

## Typical Properties\*

	Fluepac MC MAXX
Iodine Number	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.

## Estimated Annual Savings by using Fluepac MC MAXX

	Calcium Bromide Salt Rate (gal/hr)	Carbon Use Rate (lb/hr)	Calcium Bromide Daily Cost (\$/day)	Annual Savings Relative to MC MAXX (\$/yr)
Fluepac MC MAXX	8	60	1,728	–
Standard Virgin Carbon	18	125	5,184	1,395,030
Standard Brominated Carbon	N/A	320	–	1,173,840

Results obtained at a 600 MW power plant burning PRB coal. Calculations on the basis of Fluepac MC MAXX with calcium bromide rate of 60 lbs/hr.

## 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.

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