

FLUEPAC® ST

Powdered Activated Carbon

Applications



Flue Gas



Environmental Air

Description

Fluepac ST is a brominated powdered activated carbon specially formulated to enhance mercury capture in flue gas treatment applications with elevated levels of sulfur trioxide (SO₃).

It is well-established in the power generation industry that even a few parts per million (ppm) of SO₃ will have a dramatic impact on the performance of standard activated carbons. Considering this issue, Calgon Carbon has developed a line of advanced PAC products that are impacted far less by the presence of SO₃ than are standard mercury capture carbons. Sulfur-tolerant carbon will not only ensure superior performance, but will also mitigate the risk of noncompliance due to unexpected swings in fuel quality, sulfur content, and mercury re-emission excursions.

Figure 1 demonstrates the improved performance of Fluepac ST in a stream containing >10 ppm SO₃. In this trial, the standard brominated product Fluepac MC+ was only able to achieve 90% mercury removal at a feed rate of around 6 lbs/MMacf, while the advanced sulfur-tolerant product Fluepac ST reached this goal at a feed rate of only 2 lbs/MMacf. This reduced injection rate translates into less total bromine in the system, less carbon in fly ash, and fewer carbon deliveries when compared to a standard product.

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
- Safe bulk storage

Specifications

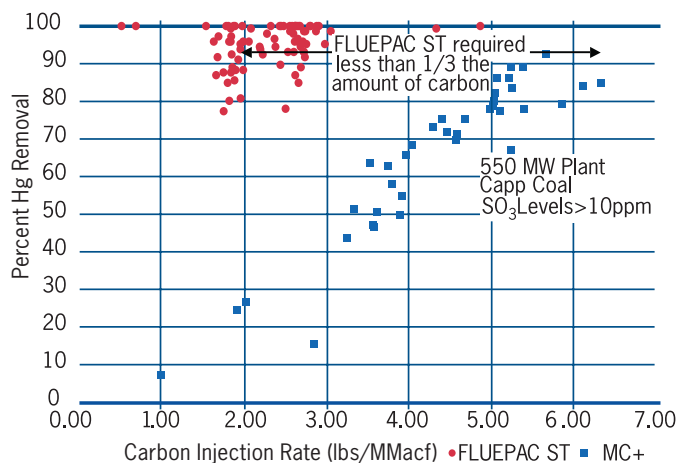
	Fluepac ST
Moisture, as packed by Weight	12% (max)
Sieve Size by volume (laser analysis)	
<100 US Mesh	100% (min)
<325 US Mesh	95% (min)

Typical Properties*

	Fluepac ST
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.

Figure 1: Performance Improvements Associated with Calgon Carbon's Sulfur Tolerant Product (Fluepac ST)



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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