



## MIDAS® ODOR CONTROL MEDIA (OCM)

### Description

Midas® OCM is unlike any other odor control media that is available in the marketplace today. A special manufacturing process which combines selected active ingredients and premium quality bituminous coal gives Midas OCM an extraordinarily high H<sub>2</sub>S breakthrough capacity. This odor control media is not impregnated and therefore does not suffer the serious drawbacks associated with alkali-impregnated carbons. Midas OCM has an ignition temperature that is similar to virgin coal-based carbons (>450°C) and since it is not impregnated with a strong alkali, is much safer to load, start-up and remove from an adsorber system.

Midas OCM is a high surface area macroporous media with a large pore volume. The lack of an impregnant means all of Midas OCM's pore volume and surface area are available for storing the sulfur produced during the catalytic oxidation of H<sub>2</sub>S and for the adsorption of any volatile organic compounds (VOCs) that may be present in the gas stream. The high H<sub>2</sub>S and acidic gas loading capacity of Midas OCM is not affected by the presence of high CO<sub>2</sub> levels. The 4mm pellet diameter offers a low pressure drop to gas flows and a superior hardness offers excellent resistance to dust and fines formation.

### APPLICATIONS

Midas® OCM can be successfully used in any application where impregnated or other odor control carbons are currently used including:

- Sewage treatment plants
- Refineries and pulp and paper mills
- Odor Control
- Removal of acidic gases such as HCl and SO<sub>2</sub>
- VOC removal

### FEATURES AND BENEFITS:

- Exceptionally high H<sub>2</sub>S loading capacity
- Longer bed life means fewer service interruptions, lower O&M costs
- High ignition temperature
- Not impregnated, safe to handle (non-corrosive)
- No dangerous pH problem when spent (non-corrosive)
- Low pressure drop
- Backed by technical support and strong QA/QC program

### QUALITY CONTROL

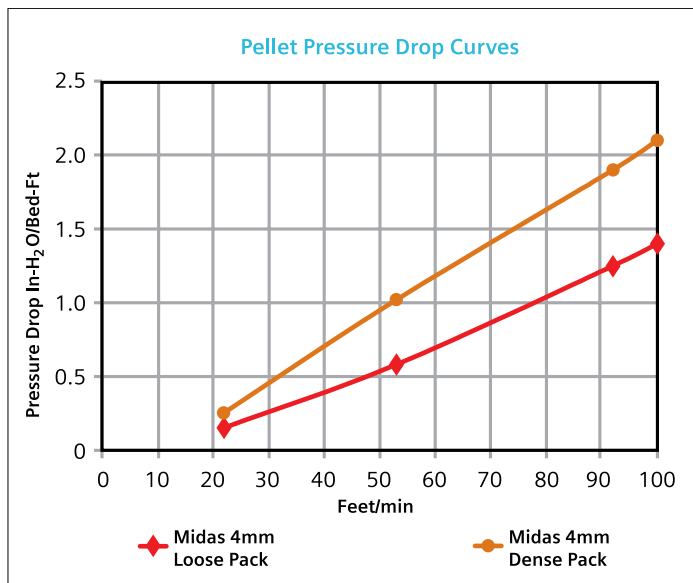
All Midas OCM undergoes extensive quality control at our State certified environmental and carbon testing laboratory located in Los Angeles, CA. The Evoqua laboratory is fully equipped to provide complete quality control analyses using ASTM standard test methods in order to assure the consistent quality of all Midas OCM carbon.

Our technical staff offers hands-on guidance in selecting the most appropriate system, operating conditions and carbon to meet your needs. For more information, contact your nearest representative.

## MIDAS® OCM SPECIFICATIONS

Carbon Type	Bituminous Coal
Mean Pellet Diameter, mm	3.9 - 4.1
Apparent Density, g/cc	0.43-0.46
Hardness No.	95 min
Butane Activity	26 min
H <sub>2</sub> S Capacity, gH <sub>2</sub> S/cc**	0.30 min

\*\* The H<sub>2</sub>S breakthrough capacity is determined using ASTM standard method D6646-01. Testing is accomplished by passing a moist (85% RH) stream of air containing 1 vol. % H<sub>2</sub>S and the selected concentration of CO<sub>2</sub> through a 1 inch inner diameter tube with a nine-inch deep bed of closely packed carbon at a rate of 1,450 cc/min and monitoring to a 50 ppmv H<sub>2</sub>S breakthrough. The results are reported as grams of H<sub>2</sub>S adsorbed per cc of carbon.



Safety Note: Unlike impregnated carbons used in odor control applications, Midas® OCM does not need to undergo long term conditioning prior to being put into service. The adsorption of VOCs and the conversion of H<sub>2</sub>S to elemental sulfur will lead to the generation of heat within a media bed. Like any carbon bed, this heat of reaction and adsorption needs to be dissipated in order to fully assure the safe operation of the bed. If these heat sources are not properly dissipated, the carbon bed temperature may rise to the point where the carbon can ignite, leading to a fire or other hazardous condition. A description of industry-accepted engineering practices to assure the dissipation of heat and safe operation of the carbon bed can be provided upon request. Wet Midas OCM readily adsorbs atmospheric oxygen. Dangerously low oxygen levels may exist in closed vessels or poorly ventilated storage areas. Workers should follow all applicable state and federal safety guidelines for entering oxygen depleted areas.

To be effective, Midas OCM requires that oxygen and moisture be present in the vapor stream being treated. The minimum acceptable oxygen concentration is 0.5 vol% and should be at least 10 times the combined concentration of H<sub>2</sub>S and other reduced sulfur compounds. Optimum performance can be obtained when the relative humidity of the gas being treated always ranges between 60 and 95%. Pre-humidification of Midas OCM immediately prior to it being placed into service assures full performance from initial system startup.

Midas OCM should NOT be used in applications where water condensation (free water) occurs. For example, this includes high humidity applications where temperature fluctuations cause the vapor temperature to drop below its dew point, causing water to condense in the carbon bed. The exposure of Midas OCM to condensed water can adversely effect performance.



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