

## 787<sup>™</sup>

787<sup>™</sup> is a specialty impregnated activated carbon developed specifically for containment of radioactive gases, including I<sup>131</sup> and methyl iodide. This carbon is a proven product used by nuclear authorities throughout the world. The use of triethylenediamine (TEDA) as a co-impregnant significantly improves

performance for capture of methyl iodide under non-ideal conditions such as high humidity and low temperature. The base carbon is manufactured by high-temperature steam activation of coconut shells. The standard mesh size is 8x16, but custom mesh sizes are available upon request.

Test	Typical Values		Calgon Carbon Test Method
	Min	Max	
Carbon Tetrachloride, wt% (Notes 1 & 2)	60	-	ASTM D 3467
Density (Apparent), g/cc	0.48	-	TM-7, ASTM D 2854
Hardness Number (Note 1)	95	-	ASTM D 3802
Moisture (As packaged), wt%	-	5	TM-1, ASTM D 2867
6 US Mesh [3.35 mm], wt%	-	0.1	TM-8, ASTM D 2862
8 US Mesh [2.36 mm], wt%	-	5	TM-8, ASTM D 2862
12 US Mesh [1.70 mm], wt%	40	60	TM-8, ASTM D 2862
16 US Mesh [1.18 mm], wt%	40	60	TM-8, ASTM D 2862
< 16 US Mesh [1.18 mm], wt%	-	5	TM-8, ASTM D 2862
< 18 US Mesh [1.00 mm], wt%	-	1	TM-8, ASTM D 2862

Note 1: This test is performed on the base material or prior to impregnation as appropriate.

Note 2: Carbon Tetrachloride value is based upon the ASTM D 5742 correlation. Carbon Tetrachloride=Butane Activity x 2.55.

The impregnates on this carbon have been shown to decrease the ignition temperature of the carbon. This product passes the United Nations Self-heating Test (United Nations Transportation of Dangerous Goods, Manual of Tests and Criteria, Part III, Section 33.3.1.6 - Test N.4 - Test Method for Self Heating Substances) and is therefore deemed suitable for shipment without concern over its self-heating. However, in some applications when the carbon is left open to air and low convective flow of air passes through it, the carbon can self-heat and ignite. Therefore, when an adsorption vessel containing carbon is out of service or in storage, care should be taken to prevent convective airflow which can be prevented with the installation of blind flanges on inlet and outlet connections.

### Safety Message

Activated carbon preferentially removes oxygen from air. In closed or partially closed containers and vessels, oxygen depletion may reach hazardous levels. If workers are to enter a vessel containing carbon, appropriate sampling and work procedures for potentially low oxygen spaces should be followed, including all applicable Federal and State requirements.

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### Warranty Disclaimer

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ACTIVATED CARBON INTRODUCTION  
**ACTIVATED CARBON 787™**

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