



AGC-30 CS

ACTIVATED CARBON
D, AD, W, OR AW GRADES

RESINTECH AGC-30 CS is a coconut shell based, premium grade, granular activated carbon supplied as either DRY or PRE-MOISTENED granules with a size range of 8 to 30 mesh. The pore structure is carefully controlled to facilitate the adsorption of both high and low molecular weight organic molecules.

RESINTECH AGC-30 CS is intended for use in dechlorinating water and reducing organic impurities, as pretreatment for reverse osmosis and ion exchange systems.

Grade	Product Name	Pre-Wetted	Acid Washed
D	RESINTECH AGC-30 CS D	No	No
AD	RESINTECH AGC-30 CS AD	No	Yes
W	RESINTECH AGC-30 CS W	Yes	No
AW	RESINTECH AGC-30 CS AW	Yes	Yes

FEATURES & BENEFITS

- REDUCED FINES AND DUST**

The pre-moistened grades are easier and safer to handle. They are virtually free of the carbon dust and fines that are responsible for the hazardous smoke and fumes created when handling dry granular activated carbon. The retained moisture also cushions the product during shipment, which retards dust and fines generation, and acts as a binder to minimize airborne dust during loading.

- OPTIMUM MESH SIZE**

The 8x30 mesh carbon has approximately 10 percent greater surface area than 8x30 mesh carbon and is more highly activated due to the smaller granule size. 8x30 mesh carbon is the ideal choice for applications that require very low release of carbon fines.

- NSF/ANSI-61 CERTIFIED FOR MATERIAL SAFETY**



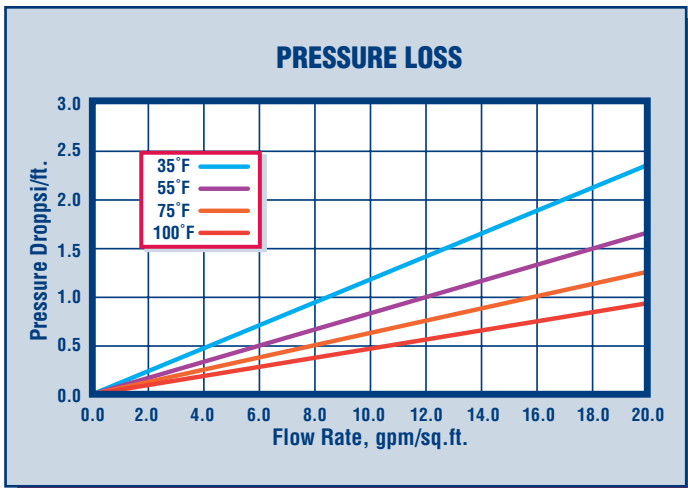
- IDEAL PORE STRUCTURE**

Well-defined pore structure and high surface area maximizes the removal of color bodies and dissolved organics that cause undesirable taste, odor or foam.

- SUPERIOR PHYSICAL STABILITY**

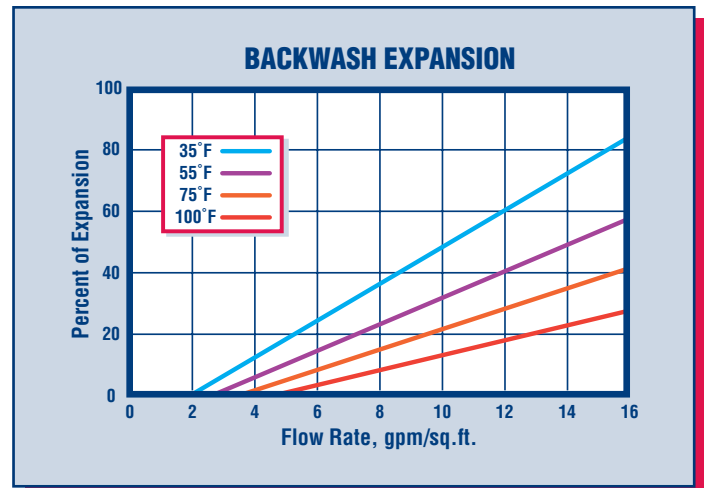
Very durable surface provides minimum attrition and long life. Suitable for steam regeneration.

HYDRAULIC PROPERTIES



PRESSURE DROP

The graph above shows the expected pressure loss per foot of bed depth as a function of flow rate at various temperatures.



BACKWASH

The carbon bed should be backwashed at least once a week with chlorinated water to achieve a bed expansion of 15 to 20%. This process helps to keep the carbon bed sterile and removes any foreign matter and carbon fines.

RESINTECH® AGC-30 CS

PHYSICAL PROPERTIES

Carbon Type	Coconut shell
Screen Size	8x30 US US Mesh Size
+8 mesh	10 percent max.
-30 mesh	10 percent max.
Mean Particle Size	0.9 to 1.1 mm
Uniformity Coefficient	1.9 max.
Abrasion Number	98 min.
Wet Density (as used)	0.64 gm/cm min.
Dry Density (as shipped)	0.48 gm/cm min.
Moisture	5 percent max.
Total Ash	2 percent (typical)
Activity Values (mg/gm)	
Iodine Number	950 min.

ACID WASHED SPECIFICATIONS

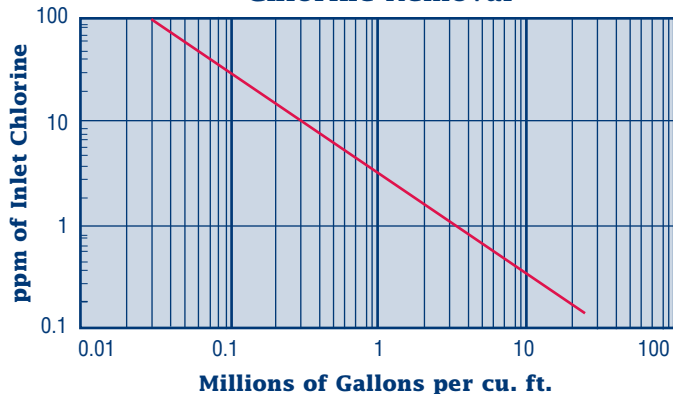
Acid Soluble Ash	Less than 0.1 percent
Total Ash (typical)	2 percent
pH (as shipped)	5 to 8
Acid Soluble Metallic Impurities as mg/kg of moist carbon	
Aluminum	Less than 2000
Copper	Less than 100
Moisture (as shipped)*	Typical 30 to 40 percent

*Shipping weight based on backwashed and drained density

SUGGESTED OPERATING CONDITIONS

Maximum Temperature	250°F
Minimum Bed Depth	
Chlorine Removal	24"
Organics Removal	36" or greater
Support Bed	12" Graded Gravel or Coarse Sand
Backwash Rate	15 to 25 percent bed expansion
Flow Rate	
For Chlorine Removal	1.0 to 2.0 gpm/cu. ft.
For Organics Removal	0.5 to 1.0 gpm/cu. ft.

Chlorine Removal



OPERATING CAPACITY

CHLORINE REMOVAL

RESINTECH AGC-30 CS activated carbon can be expected to remove a minimum of one pound of chlorine per pound of carbon. A 24" deep bed of RESINTECH AGC-30 CS will reduce 1 ppm of inlet chlorine to below the limit of detection.

The graph shows the throughput capacity of chlorine removal under the following conditions:

- 2 gpm/cu.ft. of deionized water
- 77°F
- 0.1 ppm chlorine leakage endpoint

Chlorine removal efficiency is affected by the following:

- Increasing temperature increases removal Increasing pH reduces removal (above pH 8.0 consult our technical department for recommendations)
- Increaseing TOC usually improves removal
- High flow rate reduces removal

ORGANICS REMOVAL

Removal of organics by activated carbon is variable and is site specific. In general, large organic molecules are removed more completely than smaller molecules. The probable mechanism of removal is adsorption into the carbon pores. Organics with fewer than 6 carbon atoms are not well removed. Aromatic organic molecules are generally removed better than aliphatic molecules. Organic ions are generally not well removed. Polar molecules are not removed as well as non-polar molecules.

STEAM REGENERATION

RESINTECH AGC-40 CS can be regenerated with steam to remove organics and/or chlorine that has been adsorbed. The following procedure is recommended.

1. Drain the vessel.
2. Inject steam at 212°F-225°F through the underdrain and out the vent.
3. Steam for a minimum of 60 minutes after reaching constant temperature.
4. Allow the steam to condensate then drain the condensate from the vessel.
5. Refill vessel then backwash and rinse, and return to service.

CAUTION: Make certain that the filter and ancillary equipment can withstand steam. Do not allow steam pressure to build up inside the vessel.

PACKAGING OPTIONS

POLYETHYLENE BAG -

- A & AD grades shipped at 30 lbs. net weight per bag
- W & AW grades shipped at 39 lbs. net weight per bag

FIBER DRUM WITH 5 MIL POLYETHYLENE LINER -

- 140 lb. net weight drum
- 210 lb. net weight drum

NYLON WOVEN SUPER SACK WITH BOTTOM SPOUT

- 1200 lb. net weight super sacks (liner optional)

OTHER OPTIONS AVAILABLE -

- Additional costs may apply

CAUTION: DO NOT MIX CARBON WITH STRONG OXIDIZING AGENTS. Nitric acid and other strong oxidizing agents can cause explosive reactions when mixed with organic materials such as carbon. Wet carbon depletes oxygen from air. Appropriate protective gear should be worn and procedures for work in potentially low oxygen areas should be followed.

Material Safety Data Sheets (MSDS) are available for all ResinTech, Inc. products. To obtain a copy, visit our website www.resintech.com. They contain important health and safety information. That information may be needed to protect your employees and customers from any known health and safety hazards associated with our products. We recommend that you read and study the pertinent MSDS for our products and any other products being used.

These suggestions and data are based on information we believe to be reliable. They are offered in good faith. However, we do not make any guarantee or warranty. We caution against using these products in an unsafe manner or in violation of any patents; further we assume no liability for the consequences of any such actions.