

AQUACARB™ 607C 14X40

Acid Washed Coconut Based Granular Activated Carbon

DESCRIPTION

AQUACARB™ 607C 14x40 is a high activity acid washed coconut based granular activated carbon specially designed for the purification of aqueous and organic liquids where low ash and low leachables content are required. **AQUACARB™ 607C 14x40** carbons are produced from specific grades of coconut shell then treated with acid to remove unwanted impurities before being neutralised. Because of this **AQUACARB™ 607C 14x40** performs to the same high standard as other water treatment carbons but the high purity and neutral pH prevent any contamination of the downstream water.

AQUACARB™ 607C 14x40 is ideal for use in the treatment of water in the Electronics and Semi Conductor Industries, Hospitals, Soft Drinks Bottling Plants, Breweries and large RO Desalination Units.

FEATURES

AQUACARB™ 607C 14x40 acid washed coconut based granular activated carbon has several properties which explain its performance in a wide range of applications:

- Manufactured from specific grades of coconut shell to produce a **Selected Pore Structure** for maximum adsorption.
- A high purity product (low acid soluble ash, iron, etc.) with negligible fines/dusts which is particularly suitable for high purity applications.
- Excellent backwashing characteristics. Carbon bed segregation is retained after repeated backwashing ensuring the adsorption profile remains unchanged with time and therefore maximizing the bed life before breakthrough.

APPLICATION

AQUACARB™ 607C 14x40 is used in a range of different applications including:

- Dechlorination
- Ozone removal
- Removal of taste and odour
- Elimination of dissolved pollutants and pesticides
- Protection of RO (reverse osmosis) membranes and resins

PROPERTIES

SPECIFICATIONS	607C 14x40
Carbon Tetrachloride activity, min., wt%	50
Ash content, max., wt%	1.0
Mesh Size, US sieve Series, wt%	
> 14 mesh (1.40 mm), max.	8
< 40 mesh (0.425 mm), max.	5

(Please refer to the Sales Specification Sheets, which state the Chemviron Carbon test method used to define the above specifications. Copies are available upon request.)

TYPICAL PROPERTIES	607C 14x40
Backwashed and Drained Bed Density ¹ , kg/m ³	450
Hardness Number	97
Moisture Content, as packed, max., wt%	3
Effective size, mm	0.60
Uniformity coefficient	1.6
Total Surface Area, (N ₂ BET method ²), m ² /g	1100
Methylene Blue Number	230
Mean Particle Diameter, mm	0.90
Iodine number, mg/g	1100
Dechlorination half life, DIN19603, cm	2.0
pH	6-8

¹ Backwashed and Drained Density for adsorber sizing.

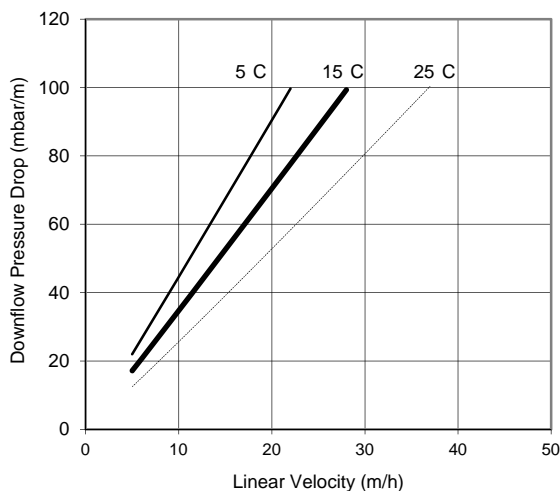
² Brunauer, Emmett and Teller, J.Am. Chem. Soc. 60. 309 (1938).

RECYCLING BY THERMAL REACTIVATION

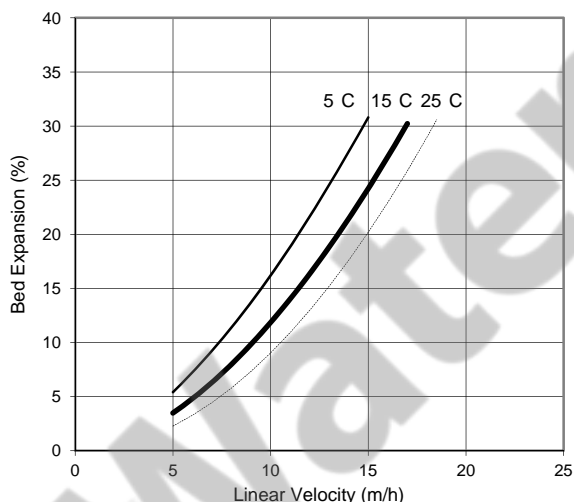
Once granular activated carbon is saturated, or the treatment objective is reached, it can be recycled, by thermal reactivation, for reuse. Reactivation involves treating the spent carbon in a high temperature reactivation furnace to over 800°C. During this treatment process, the undesirable organics on the carbon are thermally destroyed. Recycling by thermal reactivation is a highly skilled process to ensure that spent carbon is returned to a reusable quality. **Chemviron Carbon** operates Europe's largest reactivation facilities and daily recycles large quantities of spent carbon for a diverse range of customers. Recycling activated carbon by thermal reactivation meets the environmental need to minimise waste, reducing CO₂ emissions and limiting the use of the world's resources.

Chemviron Carbon can offer a recycling service for **AQUACARB™ 607C 14x40** to avoid disposal of the spent activated carbon.

Typical Pressure Drop Curves for a Backwashed and Segregated Bed



Typical Bed Expansion for a Backwashed and Segregated Bed



DESIGN INFORMATION

The following are typical design parameters for **AQUACARB™ 607C 14x40** installed for the treatment of water:

- Superficial contact time 5-15 min.
- Bed depth 0.5-3 m
- Linear velocity 5-20 m/h
- Backwash Bed Expansion 20 %

PACKAGING

- 25 kg bags
- Big bags

SAFETY MESSAGE

Wet 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.

QUALITY

Each of our worldwide operations has achieved **ISO9001:2008** certification for their quality management system related to activated carbon. **Chemviron Carbon** guarantees the specifications against representative sampling. For food grade applications, it is recommended to check the quality of the initial effluent before putting the adsorber into service.

CHEMIRON CARBON

Chemviron Carbon, the European operation of Calgon Carbon Corporation, is a global manufacturer, supplier, and developer of activated carbons, innovative treatment systems, value added technologies, and services for optimising production processes and safely purifying the environment.

With our experience developed since the early years of the twentieth century, facilities around the world and a world-class team of over 1,200 employees, Calgon Carbon Corporation can provide the solutions to your most difficult purification challenges.

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