

## AQUACARB™ 207C 12X30 Coconut Based Granular Activated Carbon

### DESCRIPTION

**AQUACARB™ 207C 12X30** is a high activity granular activated carbon for use in various water treatment applications. It is manufactured from specific grades of coconut shell to produce a high quality carbon that can meet the demands of continuous fixed bed water treatment. **AQUACARB™ 207C 12X30** is a proven product used by a variety of customers and applications, including water companies, soft drink manufacturers, brewers and in industrial water treatment.

### FEATURES

**AQUACARB™ 207C 12X30** 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.
- Coconut based granular activated carbons are suitable for **multiple reactivations** compared to other base materials such as peat and wood.
- Excellent backwashing characteristics. Carbon bed segregation is retained after repeated backwashing, ensuring the **adsorption profile remains unchanged** with time and therefore maximising the bed life before breakthrough.
- **AQUACARB™ 207C 12x30** is approved by DWI for contact with drinking water and related applications and complies with the European standard EN 12915 (Products used for the treatment of water intended for human consumption - Granular activated carbon).

### APPLICATION

**AQUACARB™ 207C 12x30** is used in a range of different applications including:

- Dechlorination
- Ozone removal
- Removal of taste and odour
- Elimination of dissolved pollutants
- Protection of RO membranes and resins
- BOD/TOC reduction
- Production of high purity water

### PROPERTIES

SPECIFICATIONS	207C 12x30
Carbon tetrachloride activity, min., wt%	50
Mesh size, US sieve Series, wt%	12x30
>12 mesh (1.70 mm), max %	8
<30 mesh (0.60 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	207C 12X30
Backwashed and Drained Bed Density <sup>1</sup> , kg/m <sup>3</sup>	460
Hardness number, %	97
Moisture Content, as packed, max., wt%	3
Iodine Number, mg/g	1100
Total Surface Area, (N <sub>2</sub> BET method <sup>2</sup> ), m <sup>2</sup> /g	1100
Methylene Blue number	230
Mean Particle Diameter, mm	1.2
Effective size, mm	0.90
Uniformity coefficient	1.4
Dechlorination half length, DIN19603, cm	2.2

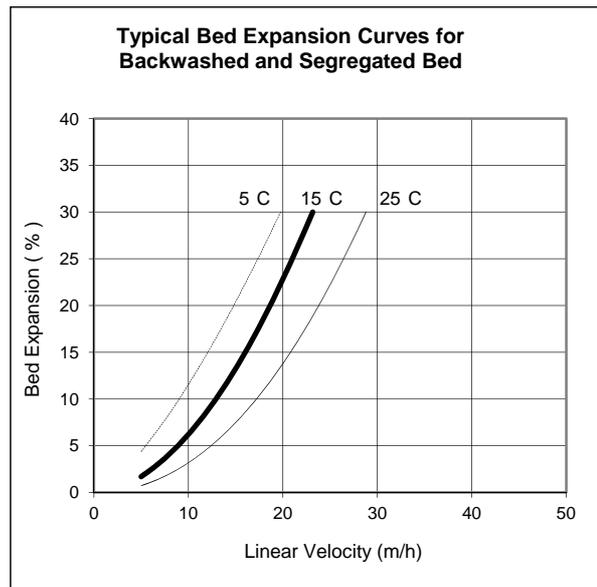
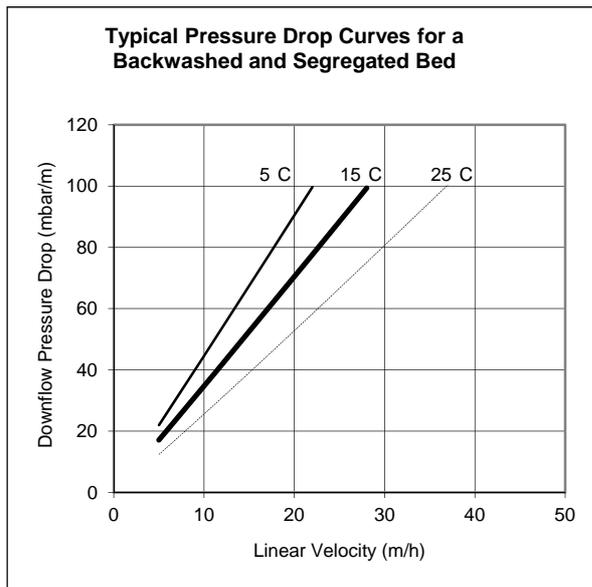
<sup>1</sup> Backwashed and Drained Density for adsorber sizing.

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

### RECYCLING BY THERMAL REACTIVATION

Once granular 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 CO<sub>2</sub> emissions and limiting the use of the world's resources.

**Chemviron Carbon** can offer a recycling service for **AQUACARB™ 207C 12X30** to avoid disposal of the spent activated carbon.



### DESIGN INFORMATION

The following are typical design parameters for **AQUACARB™ 207C 12X30** 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
- Bulk tanker

### 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.

### CHEMVRON CARBON

**Pure Water. Clean Air. Better World.**

**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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