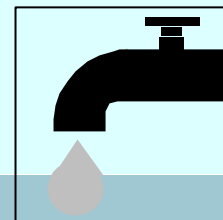


# Filtrisorb® 100 and 200

Agglomerated Coal Based Granular Activated Carbon



## PRODUCT DESCRIPTION

**Filtrisorb 100** and **200** are both from the renowned Filtrisorb range of Granular Activated Carbons which are installed in over 500 water treatment plants in Europe, the United States and Asia. Though they have less total pore volume than other Filtrisorb products, **Filtrisorb 100** and **200** possess a high proportion of high energy adsorption pores required for the removal of specific organic compounds. This makes them particularly suited to the removal of micropollutants such as chlorinated hydrocarbons from ground waters or surface waters containing a low level of natural organic matter. In addition, they are suited to the removal of taste and odour forming compounds such as geosmin and for dechlorination and deozonation applications.

## FEATURES

- The transport pores between the agglomerated particles within each granule allow the activation gases to penetrate much more within the structure of the activated carbon. The whole granule, not just the outside, is activated. This results in excellent adsorption in a wide range of applications.
- Combined with the high mechanical strength of the coal base, these transport pores also give the carbon excellent reactivation performance.
- The agglomerated structure ensure rapid wetting. There is no remaining floating material.
- By producing from a pulverised blend, the product is more uniform resulting in consistent high quality products.
- The carbon bed will be segregated which is where the larger granules go the bottom and smaller granules to the top of the bed. This stratification is retained after repeated backwashing, ensuring the adsorption profile remains unchanged with time and therefore maximising the bed life before breakthrough.
- **Filtrisorb 100** and **200** comply with EN12915, have KIWA ATA Certification and are approved by the United Kingdom Drinking Water Inspectorate.

## DESIGN INFORMATION

The following are typical design parameters for **Filtrisorb 100** and **200** installed for the treatment of ground water.

Empty Bed Contact Time	: 10 - 20 minutes
Bed Depth	: 1.5 - 3 m
Linear Velocity	: 10 - 20 m/h
Backwash Bed Expansion	: 20 %
See graphs on reverse for bed expansion.	

## SELECTION

**Filtrisorb 100** has a US Standard sieve size range of 8x30 giving an effective size range of 0.80 to 1.00mm. **Filtrisorb 200** has a 12x40 US Standard sieve size giving an effective size range of 0.60 to 0.70mm. In general, the smaller the granule size, the better the adsorption performance, therefore **Filtrisorb 200** should be selected unless the pressure drop is too high. In this case, **Filtrisorb 100** should be selected. Pressure drop graphs in function of linear velocity and temperature are shown on the reverse for both products.

## TECHNICAL DESCRIPTION

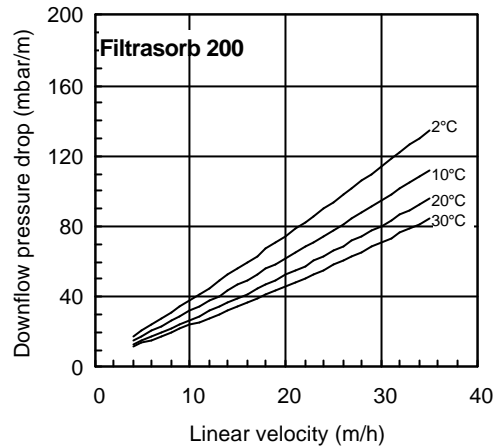
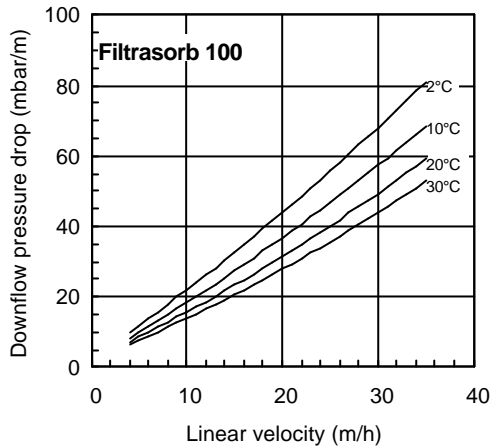
SPECIFICATIONS	F100 8 x 30	F200 12 x 40
Iodine number, minimum, mg/g	850	850
Abrasion number, minimum	75	75
Moisture content, as packed, max. %	2.0	2.0
Effective size, mm	0.80-1.00	0.55-0.75
Mesh size, US Sieve Series		
> 8 mesh (2.36mm), max. %	15	-
> 12 mesh (1.70mm), max. %	-	5
< 30 mesh (0.60mm), max. %	4	-
< 40 mesh (0.425mm), max. %	-	4

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

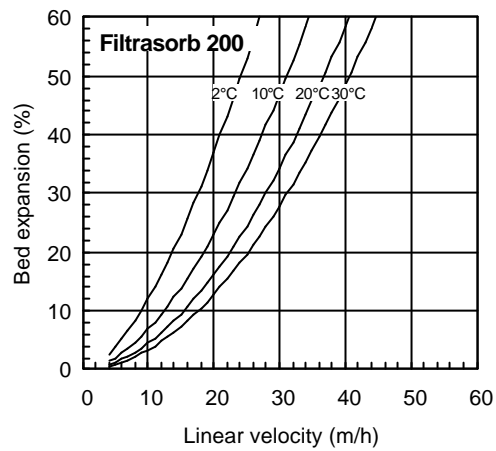
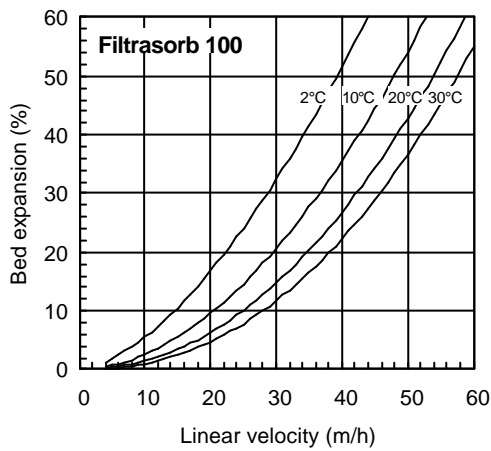
TYPICAL PROPERTIES	F100 8 x 30	F200 12 x 40
Bed density, backwashed and drained (for adsorber sizing), kg/m <sup>3</sup>	500	500
Floating content, TM-40, %w/w	0.1	0.1
Surface area, ISO 9277, m <sup>2</sup> /g	850	850
Methylene blue, TM-11	230	230
Mean particle diameter, mm	1.6	1.0
Uniformity coefficient	1.9	1.7
Dechlorination half length, DIN19603,cm	2.5	2.0*
Atrazine loading at 1µg/l, mg/g	40*	40*
Trichloroethylene at 50µg/l, mg/g	25*	25*

\*Isotherm loading in distilled water. These are reported for comparison and are unlikely to reflect loadings in practice.

**Typical pressure drop curves for a backwashed and segregated bed**



**Typical bed expansion curve**



**PACKING**

- 25kg paper bags
- 500 kg big bags
- Bulk

**QUALITY**

Each of our European Operations has achieved **ISO9002** for their quality management system related to activated carbon.

**CHEMVIRON CARBON**

**Chemviron Carbon** is the European operation of Calgon Carbon Corporation, a pioneer in carbon adsorption technology for over half a century.

**Chemviron Carbon** produces a range of pulverised, pelleted and granular carbons, including acid washed and impregnated products for use in a wide range of air, gas, water and process applications.

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