CARBOFIL®

Modules with activated carbon

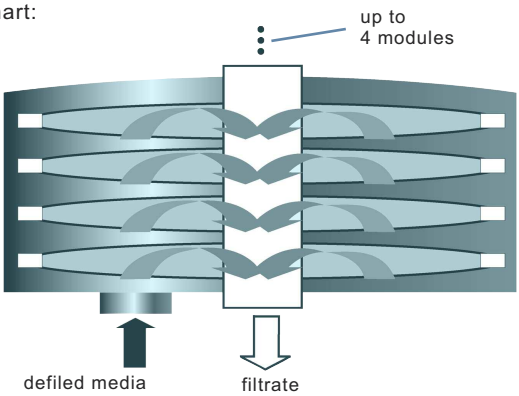
CARBOFIL® - Filter modules are depth filters with integrated activated carbon for the adsorption of interfering residues or discoloration in liquid processes. They consist of highly pure cellulose, activated carbon, inorganic filter aids, and a binder resin. The large internal surface area of the activated carbon causes a high adsorptive capacity for the separation of different molecular groups.
The high effectiveness in conjunction with a large filter area clean and simple handling provide tremendous economic benefits to the dusty and time-consuming use of powdered activated carbon.

All materials are FDA approved.

DESIGN / FUNCTION

CARBOFIL® - filter modules are designed for use in closed systems. Drip loss, dangerous emissions into the environment and subsequent handling of dirty coal powder is a thing of the past.

Flow chart:



The frame structure of the module is made of polypropylene. A stable, metal-free core sleeve carries the drainage body, which supports the filter sheets. The defied medium is forced under pressure through the filter material. The sediment particles are retained and the filtrate is passed through the drainage body, and the core sleeve to the outlet. The seal between the modules and to the filter housing is either a flat adaptor or a bayonet adaptor with double O-ring.

The latter type of seal ensures greater safety and bypass is essential in sterile filtration. In corresponding filter housings up to four filter modules can be arranged one above the other.

TECHNICAL DATA

CARBOFIL®

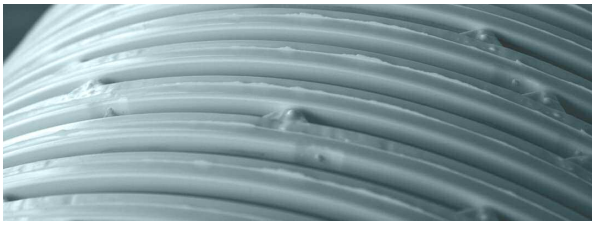
	12”	16”
Diameter	300 mm	400 mm
Filter area	1.8 m²	3.6 m²
Height (bayonet adaptor)	330 mm	330 mm
Height (flat adaptor)	272 mm	272 mm

Filter area for modules with 16 cells. Modules with reduced number of cells are available upon request.

APPLICATIONS

CARBOFIL® - filter modules are used in all industrial applications, such as:

- decolorisation of blood products, glucose solutions, antibiotics, solvents, sugar syrups, cosmetics, chemicals, silicone oils, electroplating chemicals, alcoholic beverages
- deodorisation of fruit juices, beverages
- dechlorination of water
- off-tastes removal in food and beverages



acuraLine®

Fuhr GmbH • Am Weinkastell 14 • 55270 Klein-Winternheim • Tel. (06136) 9943-0 • Fax (06136) 9943-25

CARBON CONTENT

CARBOFIL® - filter modules contain the following content:

Modules ø	Carbon content (g/m²)	Carbon content per modules (g)
12 inch	450	810
16 inch	450	1620

Modules with higher carbon content upon request.

ACTIVATED CARBON

CARBOFIL® lenticular modules have steam activated carbon inside with a high absorptive capacity and a high purity. The carbon meets the requirements of the U.S. food chemicals codex (4th edition, 1996).

GENERAL CHARACTERISTICS ACTIVATED CARBON

Molasses number (EUR)	330
Methylene blue adsorption	12 g/ 100 g
Internal surface area (B.E.T)	650 m²/g
Apparent density (tamped)	455 kg/m³ (129Kg/ft³)
Water soluble matter	1 mass %

SPECIFICATIONS ACTIVATED CARBON

Molasses decolorizing efficiency (RE)	min. 95
pH	min. 4.3
	max. 7.0
Particle size, laser, volume	
d5	min. 2.7 µm
d50	min. 30 µm
	max. 42 µm
d95	max. 130 µm
Pore size distribution	
through 100 mesh (150 µm)	99%
through 325 mesh (45 µm)	70%

ORDERING INFORMATIONS

CARBOFIL®

CARBOFIL 12-2-D Q

Type module
CARBOFIL® activated carbon modules

Module size
12 = 12 inch
16 = 16 inch

Cell quantity
2 = 16 cells*
5 = 9 cells
6 = 5 cells
* = standard

*1 = standard at flat adaptor
*2 = standard at bayonet adaptor

Gasket
A = without
N = NBR *1
E = EPDM
F = FPM
P = PTFE
S = FEP
Q = MVQ *2

Adaptor type
D = flat adaptor
A = bayonet adaptor

OPERATING CONDITIONS

Max. operating temperature.....82°C
Max. differential pressure (modules).....2.4 bar
Recommended rising volume.....50 l/m²

EXTRACTABLES

Heavy metals content referring to recommendations XXXVI/1 German BgVV:.....< 50 ppm

QUALITY ASSURANCE

The assures the best quality control according to international standards:
- ISO 9001 (Quality management))
- ISO 14001 (Environmental management)
- FDA Drug master File: # 16418

GASKET MATERIALS

Available materials:
- MVQ
- EPDM
- NBR
- FPM
- PTFE
- FEP-O-SEAL®

MATERIAL (filter sheets/ support cage)

Purified and bleached cellulose, activated carbon, natural inorganic filter aid and polyamidoamine (< 3%). The drain body and the support cage are made of polypropylene, and are metal-free.

Subject to technical alterations.
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