

## Activated carbon for vapors phase adsorption CF-BS

CF-CR is an activated charcoal that is suitable for the removal of a wide range of organic pollutants in the vapour phase. The predominance of micropores ensures effective removal of low molecular weight contaminants, present in low concentrations.

The extruded form of this product offers exceptional hardness and durability, especially in annular and deep bed adsorption units where loading stress may be high. CF-CR is suitable for use in inert gas purification, for example charcoal dioxide and nitrogen.

### Features and Benefits

- High activity product
- Extruded form
- Predominately microporous
- Exceptional product hardness
- Low dust forming properties
- Good resistance to attrition
- Wide range of pellet diameters
- High organic removal capacity
- Versatile adsorbent
- Consistent pressure loss characteristics

### Adsorption Capacity Absorption

Selected compounds in air

Compound	Type	Concentration	Capacity
n-Hexane	Aliphatic	10ppmv	9.4
		1000ppmv	17.1
Trichloroethene	Chlorinated	10ppmv	15.2
		1000ppmv	36.7
n-Propanol	Alcohol	10ppmv	14.0
		1000ppmv	33.1
Toluene	Aromatic	10ppmv	12.4
		1000ppmv	25.9

\* Multigas filters, designed for use with various materials, are available.

# Charcoal Filters

Model Number	Size (cm)	Size (in)
CF-090-CR	90 cm	35 in
CF-120-CR	120 cm	47 in
CF-150-CR	150 cm	59 in
CF-180-CR	180 cm	71 in
CF-200-CR	200 cm	79 in

## Specification

CTC adsorption	min. 55%
Moisture content, as packed	max. 5%
Ash content	min. 12%
Hardness	min. 98%

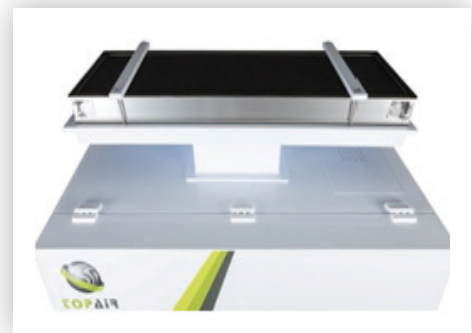
## Typical Properties

Surface area	1000m <sup>2</sup> /g
Butane adsorption	25%
Apparent density, tapped	470 – 530 kg/m <sup>3</sup>
Filling density, loose packed	400 – 450 kg/m <sup>3</sup>
Pellet diameter tolerance	±10% dia.

\* All the charcoal blends in TopAirSystems filters are made by Jacobi Germany  
 \* Multigas filters, designed for use with various materials, are available.

## Filter Box - Including High-Capacity Charcoal filter

Example of order: FH-FB-6060-CR  
 Model: FH-FB-6060



## Impregnated Coal Based Activated Charcoal Cf-Fmd

CF-FMD is an impregnated activated charcoal manufactured by steam activation from select grades of anthracite coal. CF-FMD is chemically impregnated. The carefully controlled addition of highly reactive chemical reagents ensures the efficient removal and retention of air borne pollutants including formaldehyde. The activated charcoal is also exceptionally hard and resistant to mechanical breakdown resulting from a unique binding and extrusion process used during manufacturing.

CF-FMD is chromium and halogen free ensuring safe handling and easy disposal by conventional methods.

### Features and Benefits

- Chemically impregnated
- Consistent quality
- Exceptional hardness and strength
- Rigorously dedusted
- Maximum formaldehyde loading capacity
- Minimal product degradation giving low pressure drop
- Clean handling at absorber loading and commissioning

### Typical Applications

- Synthetic laminate manufacturing
- Laboratory fume hood filters
- Mortuary ventilation systems

Model Number	Size (cm)	Size (in)
CF-090-FMD	90 cm	35 in
CF-120-FMD	120 cm	47 in
CF-150-FMD	150 cm	59 in
CF-180-FMD	180 cm	71 in
CF-200-FMD	200 cm	79 in

### Specification

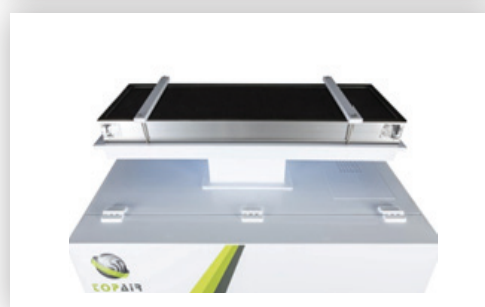
CTC activity (base charcoal)	min. 60%
Moisture content	max. 13%
Total ash content (base charcoal)	max. 12%
Ball-pan hardness	min. 98%
Formaldehyde capacity	min. 10%

### Typical Properties

CTC activity (base carbon)	63%
Apparent density	620 kg/m <sup>3</sup>
Pellet diameter	± 10% diameter

\* All the charcoal blends in TopAirSystems filters are made by Jacobi Germany

\* Multigas filters, designed for use with various materials, are available.



## Impregnated Coal Based Activated Charcoal Cf-Bs

CF-BS is a high activity extruded activated charcoal manufactured by steam activation from select grades of anthracite coal. CF-BS is chemically impregnated for the control of inorganic alkali gases, such as ammonia, amines and caustic fumes in vapor phase applications. The careful chemical impregnation allows for a high removal efficiency while maintaining a high capacity for contaminant removal.

For these reasons, CF-BS can be used in a variety of applications, including the protection of critical equipment. CF-BS is manufactured in dedicated production facilities, ensuring a high degree of product consistency and stability.

\*Option: Multi-Gas Filter-a blend of 50% acids and 50 % bases charcoal with a good efficiency for both acids and bases

### Features and Benefits

- Chemically impregnated
- Consistent quality
- Exceptional hardness and strength
- Rigorously dedusted
- Maximum loading capacity
- Minimal product degradation giving low pressure drop
- Clean handling at absorber loading and commissioning

### Typical Applications

- Chemical storage tank venting
- Purification of process gases
- Office air recirculation systems
- Laboratory fume hood filters

### Specification

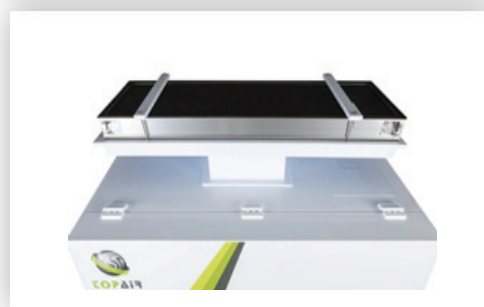
CTC activity (base charcoal)	min. 60%
Moisture content	max. 15%
Total ash content (base charcoal)	max. 15%
Ball-pan hardness	min. 95%
Phosphoric acid content	min. 10%

### Typical Properties

Apparent density	620 kg/m <sup>3</sup>
Pellet diameter	± 10% diameter

- \* All the charcoal blends in TopAirSystems filters are made by Jacobi Germany
- \* Multigas filters, designed for use with various materials, are available.

Model Number	Size (cm)	Size (in)
CF-090-BC	90 cm	35 in
CF-120-BC	120 cm	47 in
CF-150-BC	150 cm	59 in
CF-180-BC	180 cm	71 in
CF-200-BC	200 cm	79 in



## Impregnated coal based activated Charcoal CF-AC

CF-AC is a high activity extruded activated charcoal manufactured by steam activation from select grades of coal. CF-AC is chemically impregnated and thermally treated to allow for the removal of acid gases in oxygen deficient atmospheres.

The carefully controlled dispersion of the reactive chemical reagents ensures the efficient removal and retention of the contaminants while preserving a high adsorption capacity. The activated charcoal is exceptionally hard and resistant to mechanical breakdown.

\*Option: Multi-Gas Filter-a blend of 50% acids and 50 % bases carbon with a good efficiency for both acids and bases

### Features and Benefits

- Chemically impregnated
- Multi-process manufacture
- Exceptional hardness and strength
- Rigorously dedusted
- Maximum sulfur loading capacity
- Functional in oxygen deficient environments
- Minimal product degradation giving low pressure drop
- Clean handling at absorber loading and commissioning

### Typical Applications

- Natural gas purification
- Laboratory fume hood filters
- Catalyst guard bed
- Purification of biogas
- Electronics manufacturing facilities

Model Number	Size (cm)	Size (in)
CF-090-AC	90 cm	35 in
CF-120-AC	120 cm	47 in
CF-150-AC	150 cm	59 in
CF-160-AC	160 cm	63 in
CF-180-AC	180 cm	71 in
CF-200-AC	200 cm	79 in

### Specification

CTC activity (base chacoal)	min. 60%
Moisture content	max. 3%
Ball-pan hardness (pellets)	min. 98%
Ball-pan hardness (granular)	min. 90%
Metal oxide content	min. 5.0%

### Typical Properties

CTC activity (base carbon)	63%
Apparent density (pellets)	540 kg/m <sup>3</sup>
Apparent density (granular)	470 kg/m <sup>3</sup>

\* All the charcoal blends in TopAirSystems filters are made by Jacobi Germany

\* Multigas filters, designed for use with various materials, are available.

The filter series with hot melt technology is a unique family of mini-pleat HEPA and ULPA filters designed to meet the demanding airflow and efficiency requirements of the semiconductor, pharmaceutical, biotech, food processing, and other industries where airborne contaminants must be carefully controlled. These filters combine the right features to provide optimum efficiency while keeping operating costs to a minimum.

The filter series with knife-edge cell sides was designed specifically for gel seal grid systems. With 2", 3", or 4" deep media packs, the filter design reduces resistance and provides the lowest possible pressure drop. Hot melt glue beads maintain pleat separation within the pack while allowing a more compact filter depth than corrugated separators. The media pack is bonded to the sides of the extruded aluminum frame with urethane adhesive, forming an airtight seal. The filter's microglass media is water-resistant and fire-retardant.

The filters are scan-tested at 99.99% efficiency with a non-DOP aerosol to ensure they are free from pinhole leaks. An ULPA (Ultra Low Penetration Air) model is also available, which is additionally laser-tested to 99.9995% at 0.10–0.20  $\mu\text{m}$ .

- Lightweight and compact
- Easy installation – no corrugated separators
- Mini-pleat design features maximum media cleaning potential
- Lowest possible pressure drop reduces operating costs
- Available in a range of cleaning efficiencies

## Mini-Pleat Media Pack

- Highest efficiency and lowest possible pressure drop
- Pack depths from 2" to 4"
- Eight pleats per inch allow for the greatest amount of media in the shallowest depth
- Pleat straightness to  $\pm 1/4$ "—unmatched by competitors
- Classified under UL 900
- Listed in the Factory Mutual (FM) Approval Guide

## Sturdy Construction

Manufactured from borosilicate microfibers, the filter's media is water-resistant and fire-retardant. The media pack is permanently attached to an anodized extruded aluminum frame with a UL-classified urethane adhesive. Frames are available with gasket seal, gel seal, or knife-edge seal for fluid seal grid applications. The series filter with knife-edge cell sides was designed specifically for gel seal grid systems.

