

Activated Carbon

Respiratory Activated Carbon



Respiratory Requirements

Airborne pollutants and contaminants come from a variety of sources. Even at low levels these pollutants and contaminants can produce harmful and toxic properties.

In Industrial, chemical and laboratories airborne contaminants and pollutants can be present in the working atmosphere. Where this occurs the use of personal wear respirators should be used for protection of health and wellbeing to the operator.

Defence, First Responders and Emergency Services have a more demanding need for personal respirators. With a requirement for higher levels of toxic gas and vapour safety protection to the individual. Carbon Activated Europe is pleased to offer its **COC-A80 ABEK** range of activated carbon.

Respirator activated carbon filters are designed to remove harmful gases or vapours from the air through physical and chemical adsorption processes. Many organic or Volatile Organic Compounds (VOCs) contaminants are readily removed through physical adsorption.

Certain inorganic gases, such as ammonia (NH_3) and sulphur dioxide (SO_2), however, are not significantly attracted to the activated carbon's pore structure so an additional chemical adsorption process is required. This involves impregnation of the high activity activated carbon base with specialised chemical solutions.

Chemical adsorption is a chemical reaction in the activated carbon pore structure between the impregnant compound and the airborne contaminant. This reaction changes the properties of the contaminant and fixes the resulting compound in the activated carbon structure.



COC-A80ABEK Range

Carbon Activated Europe offers a range of respiratory mask activated carbon, **COC-80ABEK**. Manufactured from a highly activated coconut carbon base, the COC-80ABEK range covers all requirements in the Industrial respiratory production market.

The highly activated carbon is then impregnated to suit the requirement for our customers' needs and ensures the finest balance between chemical and physical adsorption of the contaminants and pollutants. Given that many respirators often have both organic and inorganic gas challenges, it is important to factor in the loss of physical adsorption capacity due to the addition of impregnant versus the enhanced chemisorption gained from the impregnation process. Therefore, the highest quality base carbon is required to ensure user safety.

COC-A80ABEK Range

Grade	Description
A	Organic gases/vapours with a boiling point >65oC as specified by the respirator manufacturer
B	Certain inorganic gases and vapours as specified by the manufacturer
E	Sulphur dioxide and other acidic gases and vapours as specified by the manufacturer
K	Ammonia and organic ammonia derivatives as specified by the manufacturer
AX	Organic gases/vapours with a boiling point < 65oC as specified by the manufacturer
ABEK	ABEK Filters are a combination of two or more of the above types
ABEK Hg	ABEK Hg Filters are a combination of two or more of the above types plus Mercury.





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