

THE MAGIC OF MULTIGAS

Unique to IQAir, MultiGas media removes the widest spectrum of:

- Odours
- VOCs
- Gases
- Fumes
- Chemicals
- Toxins
- Smoke

Its unique formula traps a broader range of gaseous contaminants and odours than conventional room air purifiers.

What is Multigas media?

It's a combination of:

- VOC Activated Carbon – highest efficiency granulated carbon with optimized pore content
- Chemisorber – granular media (Al_2O_3) impregnated with potassium permanganate ($KMnO_4$)

1. IQAIR VOC CARBON

There are two primary types of activated carbon used in air purification: coconut shell and coal-based.

- **Coconut-shell activated carbon** is low-grade, inexpensive and widely available. Compared with coal-based activated carbon, coconut shell carbon has fewer micropores, which are needed to remove odors and chemicals in high concentrations.
- **Coal-based activated carbon** has an incredibly large internal surface area and is a more effective adsorbent than activated carbon made from coconut shells. Of the four major coal types (sub-bituminous, bituminous, lignite, anthracite), bituminous coal has the widest range of carbon content. For these reasons, IQAir chooses bituminous coal-based activated carbon for adsorption.

IQAir VOC media is thus able to trap a broader range of gaseous contaminants and odours than conventional air purifiers.

The uniquely-formulated activated carbon used in the MultiGas media provides higher performance for residential and light commercial applications. IQAir's activated carbon is activated for a maximum proportion of micropores. It is these optimised micropores that allow for maximum removal activity at the gaseous pollutant levels typically encountered in home, office and light commercial environments.

Conventional air cleaners use gas control media based only on a purely physical filtration process, such as activated carbon and zeolite.

2. IQAIR CHEMISORBER

For control of gaseous contaminants with a low molecular weight, such as formaldehyde and hydrogen sulfide, MultiGas contains activated alumina (Al₂O₃) impregnated with potassium permanganate (KMnO₄). This non-toxic media first physically binds selected contaminant molecules and then chemically destroys them through an oxidation process.

MULTIGAS PERFORMANCE

It is this combination of physical adsorption (VOC) and Chemisorption, which creates a broad-spectrum gas and odour capture efficiency of MultiGas media.

It is contained in the IQAir HealthPro 150 (1 kg), HealthPro 250 (2.5 kg), GC MultiGas (5.4 kg) and GCX MultiGas (9.8 kg) models.