

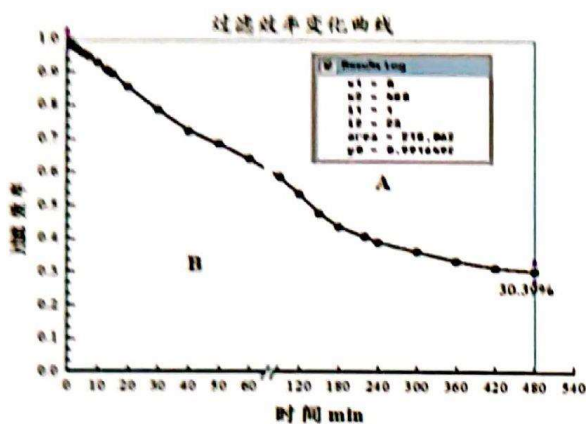
Hydrogen Vehicle Compound Filter Media Solution

Case 1

Structure : PET Framework Nonwoven + High Efficiency SO removal activated carbon + High Efficiency NO compound removal activated carbon + benzene / TVOC removal activated carbon + high dust capacity electrostatic nonwoven

Product Name: KLAE9Q-G1000L (20pa, 90%)

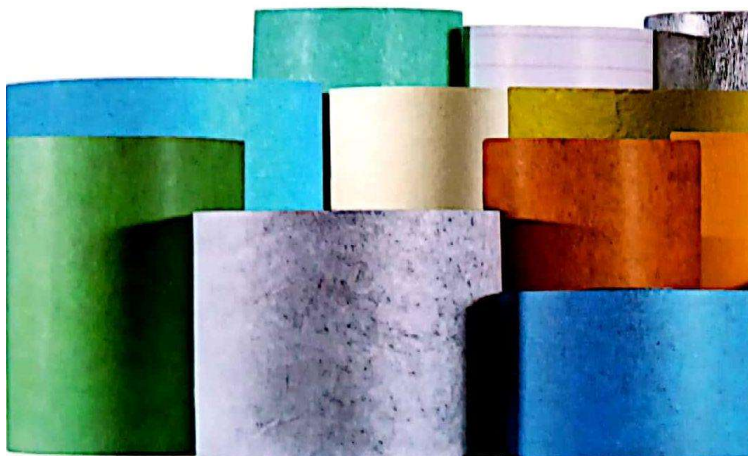
Model:ALL



Test Result:

Filtration Efficiency		1 Type Spec	I Type Spec	Efficiency Grade for Filter SO compound filtration
0min	99.16%	≥65%	≥90%	II type
1 min	98.39%	≥40%	≥75%	
5 min	95.73%	≥20%	≥45%	
15 min	89.11%	480 min SO2 absorbing quantity	21.944g	Filter Pollutant Capacity: 12.908g / dm

* Harmful gas absorbing requirements as DIN71460 and ISO5011 standard



Gas Pollutant	PPM	Pollutant capacity	Kunlun
SO2	30ppm	15.3g	35g
NH3	30ppm	4.6g	13g
NOx	30ppm	10.9g	25g
Toluene	80ppm	28.5g	60g
n-Butane	80ppm	3.7g	12g

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Why do hydrogen fuel cells filter the combustion air?

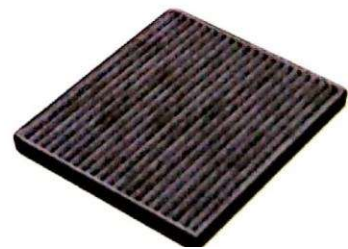
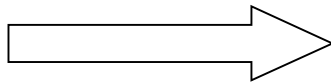
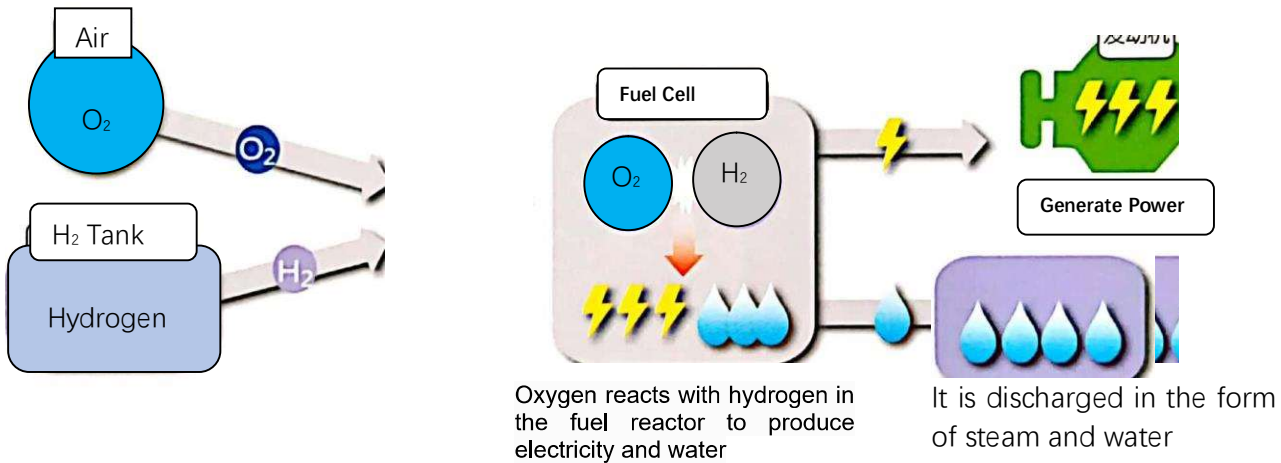
1) At present, the fuel cell still uses "Platinum" catalyst, which has high requirements for combustion air. It is not allowed to contain too much sulfide, carbon monoxide and nitride. Otherwise, the platinum catalyst will be poisoned and the power generation performance of the fuel cell will be reduced.

China once imported two German hydrogen fuel cell electric buses, which were originally planned to run in the suburbs of Beijing for two years, but only one year later, six fuel cell engines were worn out. The planned experiment came to a hasty end only half the time later. The German side attributed it to the serious air pollution in Beijing. The imported combustion supporting agent contained too much sulfide, carbon monoxide and nitride in the air, causing poisoning of platinum catalyst and reducing the power generation performance of fuel cells.

2) The solid particles contained in the haze and the dust in the air are also easy to block the fuel cell. Therefore, air pollution must be considered in the research of hydrogen fuel cells for electric vehicles!



Oxygen in the air reacts with hydrogen in the fuel reactor to produce electricity



Hydrogen Vehicle Compound Filter Media Spec

Product Name	Weight (g)	Thickness (mm)	Filtration Efficiency (%)	Pressure Drop (Pa)	Air Permeability (L / m ² / s)
KLBN12G-G700L	700±10%	2.3±0.2	≥99.5	≤32	≥600
KLAE9Q-G1000L	1000±10%	2.5±0.3	≥90	≤20	≥900
KLBN6G-G1000L	1000±10%	2.8±0.3	≥65	≤12	≥1000