Activated Carbon

for

Cabin Air Filters

[Logo]
What is Cabin Air Filtration?

Product Range

Jacobi Carbons manufacture the AddSorb™ and EcoSorb™ range of activated carbons from sustainable raw materials to exacting quality standards. Key features include a choice of product activity levels, closely controlled particle size distributions (control of flow resistance), complex chemical impregnation (inorganic gas removal) and exceptionally low dust content and material hardness (degradation in processing and material loss as dust). By implementing unique, state-of-the-art manufacturing processes, Jacobi is able to provide a market-leading product for all formats of dry and wet-laid non-woven manufacturing methods.

<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>DESCRIPTION</th>
<th>STANDARD PARTICLE SIZES</th>
</tr>
</thead>
<tbody>
<tr>
<td>EcoSorb™ MB4</td>
<td>Coconut based, good n-Butane capacity</td>
<td>20x50, 30x60 mesh</td>
</tr>
<tr>
<td>EcoSorb™ MB8-Extra</td>
<td>Coconut based, high n-Butane capacity</td>
<td>20x50, 30x60 mesh</td>
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<tr>
<td>AddSorb™ AG</td>
<td>Coconut based, acid gas removal</td>
<td>20x50, 30x60 mesh</td>
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<tr>
<td>EcoSorb™ KC-Plus</td>
<td>Coconut based, non-impregnated for SO₂ removal</td>
<td>20x50, 30x60 mesh</td>
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<tr>
<td>AddSorb™ VB9</td>
<td>Coconut based, alkali gas removal</td>
<td>20x50, 30x60 mesh</td>
</tr>
<tr>
<td>AddSorb™ VF12</td>
<td>Coconut based, aldehyde removal</td>
<td>20x50, 30x60 mesh</td>
</tr>
<tr>
<td>AddSorb™ VF1-CNS</td>
<td>Coconut based, aldehyde and alkali gas removal</td>
<td>20x50, 30x60 mesh</td>
</tr>
</tbody>
</table>

1. FOR USE IN WET LAID PROCESSES WITH LOWER WATER SOLUBILITY IMPREGNATION. 2. FOR USE IN DRY LAID PROCESSES WITH MORE EFFICIENT IMPREGNATION. THIS INFORMATION IS INTENDED AS A GUIDE ONLY AND FULL SPECIFICATION OF GRADES SHOULD BE TAKEN IN CONJUNCTION WITH YOUR LOCAL JACobi CARBONS REPRESENTATIVE.
Activated Carbon Performance

The operational performance of activated carbon in cabin air applications is normally assessed against standard indication gases. These are most commonly n-butane and sulphur dioxide. Using gravimetric tests the adsorption capacity can be determined and an expected performance when incorporated into a filter media can be predicted.

THE INCREASED USE of the motor vehicle is closely linked to both the levels of urban pollution and also congestion on the roads of our towns and cities. Despite efforts to regulate and reduce emissions, there remains a significant level of air pollution that inevitably is cycled through vehicle cabins as part of the ventilation or air conditioning system. This pollution contains a number of substances that are deemed to be hazardous to health and linked to serious respiratory conditions. When simple particulate filtration is no longer adequate, the use of adsorptive filters, utilising activated carbon are employed. This trend is spreading across all trim levels of vehicles, across all ranges and all car manufacturers. Activated carbon provides pure air inside.
**Typical n-Butane Test Conditions**

- **Concentration:** ~80 ppm
- **Flow Rate:** 20 cm/s
- **Temperature:** 23°C ± 1°C
- **Relative Humidity:** 50% ± 3%
- **Weight per Unit Area:** 400 g/m²

**n-Butane Performance**

![Graph showing n-Butane adsorption over time](image)

**Typical Sulphur Dioxide Test Conditions**

- **Concentration:** 30 ppm +/- 1.5 ppm
- **Flow Rate:** 20 cm/s
- **Temperature:** 23°C ± 1°C
- **Relative Humidity:** 50% ± 3%
- **Weight per Unit Area:** 400 g/m²

**Sulphur Dioxide Performance**

![Graph showing Sulphur Dioxide adsorption over time](image)
AddSorb™ and EcoSorb™ activated carbons are used by combining the granular or powdered form and a cloth media, usually a non-woven fabric. This provides an effective barrier against the gaseous portion of traffic fumes and as well against unpleasant industrial and farming odours.

Motor manufacturers recognise the potential for sales by being mindful of the health concerns of its customers. The benefits of using adsorptive filters exists across their entire customer base.
Jacobi Carbons has developed the most diverse production base in the industry with manufacturing plants, reactivation plants and sales offices located in 19 countries around the world.

The Global Company

MANUFACTURING PLANTS
- China
- France
- Germany
- India
- Italy
- Japan
- Sri Lanka
- The Philippines
- United Kingdom
- United States
- Vietnam

SALES OFFICES
- Argentina
- Australia
- Bangladesh
- Brazil
- Canada
- Colombia
- Ghana
- Chile
- Ecuador
- Indonesia
- Kazakhstan
- Mexico
- Myanmar
- New Zealand
- Pakistan
- Papua New Guinea
- Peru
- Russia
- Saudi Arabia
- South Korea
- South Africa
- Taiwan
- Thailand
- The Philippines
- Turkey
- United States
- Uzbekistan
- Vietnam

TECHNOLOGY CENTERS
- France
- Germany
- Japan
- United Kingdom
- United States

SELECTED DISTRIBUTION PARTNERS
- Algeria
- Argentina
- Australia
- Bangladesh
- Brazil
- Canada
- Colombia
- Ghana
- Chile
- Ecuador
- Indonesia
- Kazakhstan
- Mexico
- Myanmar
- New Zealand
- Pakistan
- Papua New Guinea
- Peru
- Russia
- Saudi Arabia
- South Korea
- South Africa
- Taiwan
- Thailand
- The Philippines
- Turkey
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