QUALITY FILTRATION PRODUCTS

With more than 100 years of experience, ACDelco know filtration. Our oil, fuel, air and cabin filters are manufactured from the highest quality materials to deliver the durability and performance you demand.

ACDelco can filter almost anything – from engine oil filters that capture particles one-third the size of a human hair, to cabin air filters that block odours and viruses.

ACDelco filters are competitively priced and backed by the best warranties and technical support in the business. In addition, the ACDelco range offers excellent vehicle application coverage to ensure that you can meet your customer and workshop needs.

With a range specifically tailored to the Australian and New Zealand market, you’ll be sure to find an ACDelco filter for just about every application today.

Be Certain every time you fit an ACDelco filter.
THE DIFFERENCE

+ Latest technology laboratory equipment for testing & development
+ Wide range filter coverage with new products being added regularly
+ National distribution network to ensure timely delivery
+ Dedicated team available for sales and technical support
+ Oscar and TecDoc catalogue maintenance performed by our technical team and business partners
+ Filters competitively priced through our vast network of Australian and New Zealand Parts Stockists

ACDelco filters protect both the vehicle components and occupants by trapping potentially harmful elements present in the air and fluids that vehicles use in normal operation. Our filters are designed to effectively trap particulates much smaller than visible to the naked eye. Filter function and efficiency are evaluated in the following ways: Micron Rating and Beta Ratio.

Micron Rating

The micron rating represents the size of the contaminant particles that the material will filter.

A micron is a metric unit of measure equal to one millionth of a meter or one thousandth of a millimeter

Human hair ranges between 40 and 90 microns in diameter.

<table>
<thead>
<tr>
<th>Micron</th>
<th>Particle Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit of Measurement</td>
<td>100μ = Grain of table salt (004&quot;)</td>
</tr>
<tr>
<td>.000039&quot;</td>
<td>40μ = Lower limit of visibility</td>
</tr>
<tr>
<td>μ = Micron Symbol</td>
<td>10μ = Talcum Powder (0004&quot;)</td>
</tr>
<tr>
<td>2μ = Bacteria (00008&quot;)</td>
<td></td>
</tr>
</tbody>
</table>

Beta Ratio = The number of upstream contaminant particles divided by the number of downstream contaminant particles

The beta ratio represents how efficiently the material will filter particles of that size. The beta ratio is the difference between the number of particles upstream of the filter and the remaining particles downstream of the filter. The beta ratio is then calculated by dividing the number of particles upstream of the filter by the number of particles downstream the filter.

For example, if 100 contaminant particles are added to the fluid, and two remain after a single pass through the filter, the filter has a beta ratio of 50. The higher the beta ratio the more efficient the filter is at trapping particles.
**OIL FILTER DESIGN FEATURES**

- ACDelco oil filters offer durable construction and provide maximum filtration efficiency
- Over 95% filtration efficiency at 30 microns, the lower limit of visibility to the naked eye is approx. 40 microns
- Heat treated tension spring keeps filter media in place under all operating conditions
- Spiral perforated centre tube prevents filter media from collapsing & maximises flow compared to standard straight tube competitors. Can withstand over 75 Psi pressure differential across filter
- Evenly spaced paper pleats with optimal media surface area for filter lifetime requirement
- Synthetic blend media with high quality adhesive to ensure media sealing & full filtration of lubricant
- Thicker filter shell offers burst strength five times greater than typical engine oil operating pressures
- Double-lock seam between the shell and the retainer plate increases burst strength
- Thermostetting adhesive between the ends of the filter paper and between the sides of the filter paper and the end plates, prevents unintended filter media bypass

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**AUTOMOTIVE FILTER PROSPECTUS**

- **Retainer**
  - Protects filter shell from damage due to concentrated pressure from tension spring

- **Bypass Valve**
  - Ensures oil flow in all conditions

- **Filtration Media**
  - Optimum filtration media specifications to ensure maximum filtration efficiency & life time

- **In-Bond Seam**
  - Double-Lock seam between the plate and the canister to increase burst strength

- **Steel Tension Spring**
  - Heat treated steel spring ensures stable tension under all conditions

- **Spiral Perforating Tube**
  - High structural strength prevents media collapse and improves lubricant flow

- **Anti Drain Back Valve**
  - To Prevent the oil in the filter from draining back to the crankcase

- **Square Seal Gasket**
  - Enhanced sealing area and better gasket retention

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For your nearest ACDelco Automotive Parts Stockist call 1800 ACDelco or visit acdelco.com.au
# OIL FILTER EFFICIENCY COMPARISON TEST

<table>
<thead>
<tr>
<th>Particle Size</th>
<th>ACDelco ACO24</th>
<th>OEM Genuine Equivalent Filter</th>
<th>Leading Aftermarket Competitor</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Beta Ratio</td>
<td>Efficiency</td>
<td>Beta Ratio</td>
</tr>
<tr>
<td>β5 &gt; 5μm</td>
<td>1.11</td>
<td>10.25%</td>
<td>1.02</td>
</tr>
<tr>
<td>β6 &gt; 6μm</td>
<td>1.14</td>
<td>12.09%</td>
<td>1.02</td>
</tr>
<tr>
<td>β7 &gt; 7μm</td>
<td>1.15</td>
<td>12.94%</td>
<td>1.01</td>
</tr>
<tr>
<td>β8 &gt; 8μm</td>
<td>1.17</td>
<td>14.71%</td>
<td>1.01</td>
</tr>
<tr>
<td>β9 &gt; 9μm</td>
<td>1.19</td>
<td>16.02%</td>
<td>1.00</td>
</tr>
<tr>
<td>β10 &gt; 10μm</td>
<td>1.23</td>
<td>18.53%</td>
<td>1.00</td>
</tr>
<tr>
<td>β11 &gt; 11μm</td>
<td>1.28</td>
<td>22.13%</td>
<td>1.00</td>
</tr>
<tr>
<td>β13 &gt; 13μm</td>
<td>1.46</td>
<td>31.53%</td>
<td>1.05</td>
</tr>
<tr>
<td>β15 &gt; 15μm</td>
<td>1.69</td>
<td>40.80%</td>
<td>1.10</td>
</tr>
<tr>
<td>β17 &gt; 17μm</td>
<td>1.99</td>
<td>49.66%</td>
<td>1.17</td>
</tr>
<tr>
<td>β20 &gt; 20μm</td>
<td>2.81</td>
<td>64.43%</td>
<td>1.40</td>
</tr>
<tr>
<td>β25 &gt; 25μm</td>
<td>7.70</td>
<td>87.01%</td>
<td>2.50</td>
</tr>
<tr>
<td>β30 &gt; 30μm</td>
<td>28.90</td>
<td>96.54%</td>
<td>6.55</td>
</tr>
<tr>
<td>β35 &gt; 35μm</td>
<td>136.99</td>
<td>99.27%</td>
<td>20.58</td>
</tr>
<tr>
<td>β40 &gt; 40μm</td>
<td>232.56</td>
<td>99.57%</td>
<td>40.32</td>
</tr>
<tr>
<td>β50 &gt; 50μm</td>
<td>333.33</td>
<td>99.70%</td>
<td>90.91</td>
</tr>
</tbody>
</table>

![Overall Filter Efficiency vs. Particle Size](image)

Based on ISO 4548-12 Test
AIR FILTER DESIGN FEATURES

As much as 40,000 litres of air must pass through the air filter for every litre of fuel the engine burns. Therefore making sure you fit a high quality, efficient air filter is essential. ACDelco air filters trap damaging foreign particles to help maximise the service life of an engine’s internal components.

Design Features
+ Specific media choice & pleat design to minimise pressure drop across filter and optimise filter life
+ Resin-impregnated paper to enhance filter efficiency
+ Pleat lock technology to prevent pinching of media & filter blockage
+ Supple rubber seals prevent air bypassing the filter
+ Spiral inner tube with crimped seam improves rigidity to support filter media (round filters)
+ Straight crimped (not welded) outer tube to prevent pleat wear (round filters)

These Features Allow Us To Provide:
+ 50-100 percent increase in filter capacity
+ Improved paper strength & filter durability
+ Resistance to moisture and abrasive particles
AIR FILTER DESIGN FEATURES

- Softer gasket improves sealing
- Paper pleat is evenly spaced to keep the media from bunching
- Spiral lock seam strengthens inner tube and prevents media collapse
- Straight clamp joint eliminates pleat tip wear

AIR FILTER EFFICIENCY COMPARISON TEST

<table>
<thead>
<tr>
<th>Retained Capacity (Gram)</th>
<th>ACA 249</th>
<th>OEM Genuine Equivalent Filter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial Efficiency (%)</td>
<td>99.66</td>
<td>99.80</td>
</tr>
<tr>
<td>Full Life Efficiency (%)</td>
<td>99.91</td>
<td>99.90</td>
</tr>
<tr>
<td>Life Time (Minute)</td>
<td>119.48</td>
<td>107.87</td>
</tr>
<tr>
<td>Dust Holding Capacity (gr/m²)</td>
<td>361.09</td>
<td>330.37</td>
</tr>
</tbody>
</table>

Based on ISO 5011:2014 Test
ACDelco Fuel Filters are a premium replacement filter designed and developed with the original equipment and application needs in mind. They meet or exceed all application requirements and assist in providing the correct overall mix of filtration performance, materials compatibility, flow management and durability. The complete range of ACDelco petrol fuel filters are E85 compatible.

**Fuel Filters To Suit Carburetor Applications**
- Direct installation into the fuel line adds greater versatility when used with other fuel system protectors.
- Resin impregnated pleated paper filtering media increases filter capacity.
- Tube type fittings allow easy installation in all types of fuel lines.

**Fuel Filters To Suit Fuel Injection Applications**
- Seams designed to withstand the high pressure of fuel injected systems.
- Filter media phenolic impregnated to increase filter capacity, efficiency and rigidity.
- Inner end plates made of specially coated material that is chemically resistant to all fuels currently available.
- Fittings in a variety of styles including O-ring, tube and new quick connect style providing easy installation with less labour and tooling.

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**Overall Filter Efficiency vs. Particle Size**

<table>
<thead>
<tr>
<th>Particle Size (μm)</th>
<th>ACDelco ACF22</th>
<th>OEM Genuine Equivalent Filter</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt; 4μm</td>
<td>1.84</td>
<td>1.57</td>
</tr>
<tr>
<td>&gt; 6μm</td>
<td>2.79</td>
<td>2.11</td>
</tr>
<tr>
<td>&gt; 8μm</td>
<td>4.55</td>
<td>3.08</td>
</tr>
<tr>
<td>&gt; 11μm</td>
<td>8.33</td>
<td>4.99</td>
</tr>
<tr>
<td>&gt; 15μm</td>
<td>56.50</td>
<td>25.25</td>
</tr>
<tr>
<td>&gt; 20μm</td>
<td>434.78</td>
<td>270.27</td>
</tr>
<tr>
<td>&gt; 30μm</td>
<td>100.0%</td>
<td>99.91%</td>
</tr>
<tr>
<td>&gt; 40μm</td>
<td>100.0%</td>
<td>99.92%</td>
</tr>
</tbody>
</table>

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**Retained Capacity**
CABIN AIR FILTER DESIGN FEATURES

Cabin air filtration is one of the fastest growing segments of the filtration industry as the air quality in a vehicle’s cabin has never been more important.

The vehicle’s cabin filtering system is a baseline in the prevention of airborne contaminants including odours, fumes, mould and smoke from entering the vehicle cabin.

ACDelco’s cabin filters will not only remove airborne solid contaminants from the air, but they can also adsorb exhaust fumes and unpleasant odours.

ACDelco Cabin Air Filters Will Appeal To:
+ Allergy sufferers and others concerned with air quality
+ Interstate drivers with hours of continuous exposure to contaminants
+ Owners who value the increased comfort and air quality of their vehicles interior
+ Drivers spending extended time in heavy traffic

CABIN AIR FILTER DESIGN FEATURES

ACDelco Standard Cabin Air Filters provide the additional benefits of keeping the HVAC system free of debris, such as leaves, pollen and dirt which can restrict airflow through the evaporator and heater core. This debris along with the evaporator condensation, supports biological growth on the evaporator which can cause unpleasant odours or allergens to enter the cabin. For those customers on a tighter budget, the standard cabin air filter offers a great level of protection.

ACDelco Premium Triple Layer Cabin Air Filters offer additional levels of protection by utilising an activated Carbon layer to further protect against viruses, germs, allergens, and bacteria. Our triple layer cabin filters have activated charcoal between the layers of the filter media. Activated charcoal has millions of tiny pores which attract and capture odour causing molecules such as those found in vehicle exhaust. The activated charcoal along with the premium filter material, nearly eliminates all allergens and irritants from the air entering the cabin.

ACDelco cabin air filters will hold and filter out dust particles down to 2.5 microns.

ACDelco Triple Layer Filtration:
1. Filter Layer: Protects against viruses, germs, allergens, bacteria or fungi from entering the cabin of the vehicle. It also removes any that are already airborne in the vehicle before installation of the ACDelco Cabin Air Filter.
2. Carbon layer: Removes unpleasant odours and reduces impact of harmful exhaust gases.
Whether you’re a professional or DIYer, the latest range of ACDelco filters are readily available and competitively priced through our vast network of Australian and New Zealand Parts Stockists.

If you’re in the automotive trade and own or manage a workshop, make sure you’re part of the GM Trade Parts Program. This ensures you keep up to date with all ACDelco products and offers and get the best prices every time.

CHECK OUT THE LATEST RANGE OF ACDelco PREMIUM OILS

For full application details refer to www.acdelco.com.au

ACDelco also offers a comprehensive Product Range to suit Most Makes & Models

For your nearest ACDelco Automotive Parts Stockist call 1800 ACDelco or visit acdelco.com.au