Vehicle and engine manufacturers worldwide are striving to improve the fuel efficiency and performance of diesel engines while meeting particulate mass and particulate number emissions limits. Corning® DuraTrap® AT LP filters help our customers meet their objectives.

Next-generation Corning DuraTrap® AT LP 300/10 and Corning DuraTrap® AT LP 300/13 filters are designed with a lower porosity and optimized microstructure to enable product designs for low pressure drop or high soot mass limit.

Next-Generation Product Benefits*

<table>
<thead>
<tr>
<th></th>
<th>DuraTrap® AT 300/13</th>
<th>DuraTrap® AT LP 300/10</th>
<th>DuraTrap® AT LP 300/13</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressure Drop</td>
<td>Base</td>
<td>-20-25%</td>
<td>=</td>
</tr>
<tr>
<td>Soot Mass Limit</td>
<td>Base</td>
<td>=</td>
<td>+2.3 g/l</td>
</tr>
<tr>
<td>Filtration Efficiency</td>
<td>Base</td>
<td>=</td>
<td>=</td>
</tr>
</tbody>
</table>

Corning DuraTrap® AT LP 300/10 for Low Backpressure

- Thinner walls and low porosity:
  - Allow for better fuel economy, lower CO2 emissions, and higher engine performance
  - Maintain thermal and mechanical robustness that allows for high soot mass limits

Corning DuraTrap® AT LP 300/13 for High Soot Mass Limit

- Higher thermal mass:
  - Reduces regeneration frequencies and fuel consumption
  - Increases thermal and mechanical robustness for higher soot mass requirements
Monolithic Advantage

Corning’s aluminum titanate material provides low thermal expansion to enable durable monolithic construction that allows for:

- Low pressure drop and excellent regeneration efficiency to help improve fuel consumption
- Increased ash storage capacity and larger filtration surface area compared to segmented filters

Innovative Design

The extrude to shape monolithic design can be produced in a variety of sizes and optimized for systems with space constraints and diverse configurations.

Corning’s innovative asymmetric cell technology (ACT) is an option that helps manage lifetime pressure drop requirements and provides ash storage benefits through larger inlet channels.

Standard Cell Geometry & Sizes

- 300 cells per square inch
- 13 mil and 10 mil wall thicknesses
- Wide range of sizes available

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**Corning® DuraTrap® AT LP Filters**

**Monolithic Advantage**

Corning DuraTrap® LP 300/10 for low pressure drop designs

![Graph showing backpressure performance](image)

**Backpressure Performance**

<table>
<thead>
<tr>
<th>Pressure Drop in kPa @ 200°C (soot 2-3 g/l)</th>
<th>Volume Flow in m³/h</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corning DuraTrap® AT 300/13 ACT</td>
<td>0</td>
</tr>
<tr>
<td>Corning DuraTrap® AT LP 300/10 ACT</td>
<td>5</td>
</tr>
<tr>
<td>Corning DuraTrap® AT LP 300/13 ACT</td>
<td>10</td>
</tr>
<tr>
<td>Corning DuraTrap® AT 300/13 ACT</td>
<td>20</td>
</tr>
</tbody>
</table>

**Temperature Response during Uncontrolled Regeneration**

Corning DuraTrap® AT LP 300/13 for higher soot mass limit designs

![Graph showing temperature response](image)

**Temperature Response during Uncontrolled Regeneration**

<table>
<thead>
<tr>
<th>Max Temperature (˚C)</th>
<th>Soot Load [g/l]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corning DuraTrap® AT 300/13 ACT</td>
<td>700</td>
</tr>
<tr>
<td>Corning DuraTrap® AT LP 300/10 ACT</td>
<td>800</td>
</tr>
<tr>
<td>Corning DuraTrap® AT LP 300/13 ACT</td>
<td>900</td>
</tr>
<tr>
<td>Corning DuraTrap® AT 300/13 ACT</td>
<td>1000</td>
</tr>
</tbody>
</table>

**Corning DuraTrap® AT LP 300/10 filter**

Asymmetric Cell Technology (ACT): larger inlet, smaller outlet**

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**CORNING**

**Brazil**
Corning International São Paulo
Phone: 55-11-3089-7400

**China**
Corning (Shanghai) Company, Ltd.
Pudong, Shanghai
Phone: 86-21-5055-4888

**Germany**
Corning GmbH
Wiesbaden
Phone: 49-611-7366-0

**India**
Corning S.A.S. India Branch Office
Gurgaon - 122 002, Haryana
Phone: 91-124-460 4000

**Japan**
Corning International K.K.
Tokyo
Phone: 81-3-3586-5002

**Korea**
Corning Korea Company, Ltd.
Gangnam-Gu, Seoul
Phone: 82-2-796-9500

**Russia**
OOO Corning SNG
Moscow
Phone: 7-495-777-2400

**United States**
Corning Incorporated
Troy, Michigan
Phone: 248-680-4701
Corning Incorporated
Corning, New York
Phone: 607-974-9000

www.corning.com/environmentaltechnologies
Global e-mail: environmental@corning.com

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**Unplugged to highlight ACT geometric design. Filters will have alternating plugged channels.**

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