Dow Brake Fluids

Dow Brake Fluids Exceed Technical Specifications and Standard Requirements
Dow Automotive Systems offers a broad portfolio of fluid technologies to ensure the safe and efficient operation of today’s demanding motor vehicle braking, air conditioning and engine systems. We offer a complete line of DOT 3, DOT 4, DOT 5.1 and racing brake fluids. Dow Automotive Systems also provides additional performance fluids and lubricants worldwide, including mobile air conditioner compressor lubricants and engine coolants.

The Dow Chemical Company is a leading provider of the key raw materials used to produce Dow Automotive Systems fluids, including glycol ethers, glycols and polyglycols. This, combined with more than 50 years of materials science and application expertise, enables us to provide OEM and aftermarket customers with automotive fluid solutions that meet or exceed performance and cost targets.

Dow Automotive Systems is the largest global producer of brake fluids for OEM and aftermarket customers. Our premium brake fluids, fully tested and certified, exceed technical specifications and standard requirements including:
• FMVSS No. 571 116, DOT 3, DOT 4, DOT 5.1
• SAE J1703 and J1704
• ISO 4925

Benefits
Dow brake fluids provide a unique balance of the following properties and are statistically monitored to ensure product consistency:
• Wet and dry boiling point
• Low-temperature viscosity
• Corrosion protection
• Compatibility with braking system components
• Long-term stability

Since key raw materials are internally produced and refined to meet the require specifications, product quality is consistently achieved.

Performance Advantages

Safety, reliability and comfort continue to be increasing requirements for brake devices in the automotive market. As the automotive industry looks for innovative technologies for fuel efficiency gains, brake systems get more and more sophisticated and require increased reliability.

You can improve the long-term performance of your brake systems with Dow premium brake fluids made from high-quality materials to help ensure consistent and efficient braking.
Brake Fluids Performance Summary – Typical Properties

<table>
<thead>
<tr>
<th>Brake Fluid</th>
<th>Classification</th>
<th>BRBP (°C)</th>
<th>BRBP (°F)</th>
<th>WERBP (°C)</th>
<th>WERBP (°F)</th>
<th>Viscosity -40 °C (mPas)</th>
<th>Viscosity 100 °C (mPas)</th>
<th>Density (g/cm³)</th>
<th>Color (Gardner)</th>
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</thead>
<tbody>
<tr>
<td>DOT 3</td>
<td>FMVSS 116</td>
<td>Min 205</td>
<td>401</td>
<td>Min 140</td>
<td>284</td>
<td>Max 1500</td>
<td>Min 1.5</td>
<td>*</td>
<td>Colorless to Amber</td>
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<td>DOT 4</td>
<td>FMVSS 116</td>
<td>Min 230</td>
<td>446</td>
<td>Min 155</td>
<td>311</td>
<td>Max 1800</td>
<td>Min 1.5</td>
<td>*</td>
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<tr>
<td>DOT 5.1</td>
<td>FMVSS 116</td>
<td>Min 260</td>
<td>500</td>
<td>Min 180</td>
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<td>Max 900</td>
<td>Min 1.5</td>
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</table>

*Need to test; no requirement

Full-Service Support from a Single-source Supplier

- More than 50 years of experience in supplying fluids to OEM and aftermarket customers
- State-of-the-art process technology
- Facilities have been QS-9000 certified since 1997
- All facilities were ISO/TS 16949 certified in 2003

In addition to the largest selection of materials solutions, Dow Automotive Systems offers the following services to meet your automotive fluids needs:
- Product development support
- Materials engineering reviews
- Submission of production part approval process information, including full material specification data
- Cost-saving opportunities aligned with value-engineering initiatives
- Product samples and functional trials
- R&D, manufacturing and management services with product optimization

About Dow Automotive Systems

Dow Automotive Systems, a business unit of The Dow Chemical Company, is a leading global provider of collaborative solutions and advanced materials for original equipment manufacturers, tier suppliers, aftermarket customers and commercial transportation manufacturers. Our materials focus includes structural, elastic and rubber-to-substrate adhesive solutions; PU foams and acoustical management solutions; films; fluids; and innovative composite technologies. Offices and application development centers are located around the world to ensure regionalized technical, engineering and commercial support for customers and industry groups. For additional information, visit dowautomotivesystems.com.

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