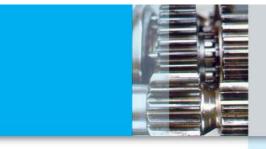


Havoline® Heavy Brake Fluid 260 DOT4

Efficient performance automotive brake fluid

Product Data Sheet







Product description

Havoline Heavy Brake Fluid 260 DOT4 is an efficient performance non-petroleum automotive brake fluid, designed for use in conventional hydraulic brakes and clutch systems, particularly in severe service conditions where DOT4 Plus and DOT4 fluids are recommended.

Havoline Heavy Brake Fluid 260 DOT4 is a complex mixture of polyalkylene glycol monoalkyl ethers and ester derivatives with additional corrosion and oxidation inhibitors.

Customer benefits

- Higher boiling point and retention of boiling point in service helps prevent high temperature vapour formation, maintaining braking performance longer than DOT 3 products
- Contributes an additional safety margin against vapour lock when compared with lower specification fluids
- Buffered formulation maintains pH level in the alkaline range, helping protect cast iron and steel components
- Inhibitors contribute to corrosion protection of a wide variety of metals including aluminium, brass, copper, zinc and tin
- Seal swell and lubricity characteristics help prevent fluid leaks and reduce component wear
- Thermal and oxidation stability helps resist fluid degradation, maintaining key performance features throughout fluid service life
- Suitable for a wide range of vehicle types, reducing inventories

Applications

• Havoline Heavy Brake Fluid 260 DOT4 meets the recognised standards for clutch and brake fluids as demanded by leading motor vehicle manufacturers.

Product highlights:

- High boiling point
- Helps prevent vapour lock
- Contributes to component wear corrosion protection
- Selected specification standards include:
- FMVSS 116 DOT 3, FMVSS 116 DOT 4
- ISO 4925
- SAE J1703, J1704









- All hydraulically operated motor vehicle braking systems (drum and disc types) for which a DOT4, SAE J1704 or ISO 4925 Class 4 fluid is specified
- Make-up or service fill of braking systems requiring DOT 3, SAE J1703 or ISO 4925 Class 3 fluids
- Vehicles with anti-lock (ABS) braking systems
- Hydraulic clutch systems requiring conventional fluids
- Passenger cars, commercial road transport, off-highway vehicles, agricultural tractors and motorcycles

Havoline Heavy Brake Fluid 260 DOT4 is compatible with other brands of DOT4 / DOT 3 brake fluid.

Havoline Heavy Brake Fluid 260 DOT4 should not to be used in systems designed for mineral oil based fluids (LHM), for example certain Citroen models, or where Silicone DOT 5 fluids are recommended.

Approvals and performance specifications

Performance specifications

| • FMVSS | 116 DOT 3 | Meets requirements |
|---------|--------------|--------------------|
| • FMVSS | 116 DOT4 | Meets requirements |
| • ISO | 4925 Class 3 | Meets requirements |
| • ISO | 4925 Class 4 | Meets requirements |
| • SAE | J1703 | Meets requirements |
| • SAE | J1704 | Meets requirements |



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continued

Typical test data

| HAVOLINE HEAVY BRAKE FLUID 260 DOT4 | | |
|---|----------------|---------|
| TEST | TEST METHODS | RESULTS |
| Product Code | | 510655 |
| Colour | FMVSS 116 (13) | Amber |
| Equilibrium Reflux Boiling Point, °C | FMVSS 116 (1) | 283 |
| Wet Equilibrium Reflux Boiling Point, °C | FMVSS 116 (2) | 175 |
| Viscosity, Kinematic, -40 °C, mm²/s | FMVSS 116 (3) | 1100 |
| Viscosity, Kinematic, 100 °C, mm²/s | FMVSS 116 (3) | 2.12 |
| pH value | FMVSS 116 (4) | 7.9 |
| | | |

This bulletin was prepared in good faith from the best information available at the time of issue. While the values and characteristics are considered representative, some variation, not affecting performance, can be expected. It is the responsibility of the user to ensure that the products are used in the applications for which they are intended.

Produced by Chevron Lubricants; Africa, Middle East and Pakistan.

<u>Environment, Health and Safety</u> Information is available on this product in the Material Safety Data Sheet (MSDS) and Customer Safety Guide. Customers are encouraged to review this information, follow precautions and comply with laws and regulations concerning product use and disposal. To obtain a MSDS for this product, visit www.caltexoils.com.