

SERVICE PRODUCTS.

PRODUCT HIGHLIGHTS.

BMW/MINI DOT 4 Motor Vehicle Brake Fluid.

81 22 0 142 156, BMW, 12 fl oz/355mL

81 22 0 142 155, BMW, 1 US gal/3.785L

81 22 0 146 735, MINI, 12 fl oz/355mL

Product Description

The force generated, when the brake pedal is actuated, is transmitted hydraulically by the brake fluid to the piston in the brake cylinder. The movement of the piston causes the brake pads to be forced against the brake discs in order to decelerate the vehicle.

In this way, brake fluids play a key role in vehicle safety and must therefore satisfy high operating requirements.



Information

Generally the brake fluid should be changed every two years.

BMW brake fluid is miscible with water and biodegradable.

Advantages

- High boiling point.
- Low viscosity at icy temperatures.
- Outstanding corrosion protection.
- Excellent lubrication.
- Compatibility with a wide range of elastomers.
- Optimum thermal stability.
- Excellent low-temperature stability.

High Boiling Point

The water absorption of the braking system out of the environment can never be totally prevented. On average, the brake fluid in a vehicle absorbs 1% to 1.5% water per annum. As a result of the increasing water content in the brake fluid the boiling point drops. If the boiling point of the brake fluid is exceeded (the heat of friction caused by braking can heat the wheel brake cylinders and brake fluid to temperatures above 150°C), vapor bubbles form, which, unlike liquids, are compressible. When the brakes are applied, the bubbles are compressed without the power on the pedal being transmitted to the wheel brake cylinders. This type of brake failure is known as vapor lock. Because of its high boiling point and chemical properties, Hydraulan® prevents the formation of bubbles and potential failure of the braking system.

Low Viscosity at Icy Temperatures

Braking takes place in fractions of a second and are supported by brake control systems (DSC). The hydraulic pressure generated through actuation of the brake pedal must be transmitted to the wheel brakes instantly. Brake fluids with high viscosity at low temperatures build up the braking pressure more slowly and delay the braking response. BMW brake fluid has an extremely low viscosity, particularly at icy temperatures, and thereby optimizes the responsiveness of the brakes. Only this product ensures proper functioning of the brake control systems at low temperatures.

Outstanding Corrosion Protection

BMW Brake fluid contains highly effective additives, which reliably protect various metals in the braking system (e.g. steel, cast iron, aluminum, brass and copper) against oxidation and corrosion. Therefore the functionality of the metal components is secured.

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Excellent Lubrication

In order to prevent friction and abrasion, BMW Brake fluid contains ingredients with lubricating properties. Regular test simulations under extreme conditions prove excellent lubricating performance.

Compatibility with a Wide Range of Elastomers

Elastomeric cups are used to seal the brake cylinders against loss of fluid in the gap between the piston and cylinder. BMW Brake fluid provides the necessary slight swelling of the elastomeric cups, so they form a reliable seal and prevent loss of brake fluid.

Optimal Thermal Stability

Under extreme operating conditions brake fluids reach temperatures of more than 150°C. Despite this high thermal load the brake fluid must remain chemically and thermally stable. The use of high-quality glycol ether components and special inhibitors ensures maximum optimization of their thermal stability.

Excellent Low Temperature Stability

At extremely low temperatures of between –40°C and –50°C there is the risk of the system becoming locked as a result of precipitates. The BMW Brake fluid offers outstanding low temperature stability in order to prevent brake failure.

Safety

BMW brake fluid provides maximum safety. As it guarantees safety and top-class performance for the highest operating requirements.

Dangers when using poor Brake Fluid

- Brake failure.
- Delayed brake response.
- Corrosion.
- Friction and abrasion.
- Defective seal resulting in loss of brake fluid.
- Unstable brake fluid.

Quality Protection

BMW Brake fluid guarantees an outstanding brake performance at any temperature level and keeps the vehicle safe.

The manufacturer uses only the best raw materials which quality standards are significantly higher than required by international Norms.

Standards

BMW brake fluid meets and exceeds all requirements, inclusive the BMW norm QV 34 001.

Competitive Comparison

Due to the low viscosity level BMW brake fluid can be used in the most up-to-date hydraulic brake systems.

No existing competitor product meets the requirements of the low viscosity to that extent. Therefore our supplier has received many international awards.

BMW brake fluid is the only approved brake fluid at BMW for serial use.