AUTO CHEMICAL

Superior Brake Fluid DOT4 LV

TCL

Product number : EU-6
Product code : 02999

LOW VISCOSITY BRAKE FLUID For European Cars

- European car corresponding Brake Fluid
- Low viscosity Brake Fluid DOT4 LV
- DOT4 LV passed of JIS BF-4 and ISO Class6

DOT4 LV is necessary in showing best performance for European Cars

LV of DOT4 LV means Low Viscosity (low viscosity type brake fluid).
"DOT 4 LV" is very suitable for vehicles equipped with ESP (Electric Stability Program), ABS (Anti-lock Braking System), ASR (Anti-Slip Regulation) as a braking function for electronic devices accompanying the recent evolution of automobiles. It demonstrates excellent performance and supports the operation of the latest braking technology.
Especially for European cars, this type of brake fluid is specified.
DOT4 LV is required to achieve the original performance.

Product characteristics

1. Recommended for the latest generation vehicles equipped with electronically controlled brakes and vehicle stabilization systems such as ABS, ESP, ASR, TCS, and EBD.
2. Low-viscosity brake fluid that has passed JIS BF-4, FMVSS No.116 DOT4 and ISO4925 Class6 standards.
3. The low viscosity of TCL Superior Brake Fluid DOT4 LV at -40℃ is 628㎟/s (typical value), which is excellent in fluidity and responsiveness at low temperature, and also meets the standards of ISO4925 Class6.
4. TCL Superior Brake Fluid DOT4 LV has a dry boiling point of 269℃ (typical value) and a wet boiling point of 168℃ (typical value), and has excellent performance at higher temperatures than the boiling point of conventional DOT4 products (Comparison with our other products.).

Specifications

Volume	1L
Material	Glycol Ether Polyglycol Boric acid ester
Gravity (Typical value)	1.060
Dry Boiling Point (Typical value)	269℃
Wet Boiling Point (Typical value)	168℃
Kinematic Viscosity (Typical value)	628cst
Standard	JIS K2233 BF-4 FMVSS NO.116 DOT4 ISO 4925 CLASS6
JAN	4949329029995
Qty Per Carton	20pcs
N.W(kgs)	21.4kgs
G.W(kgs)	24.6kgs
Measurement	45.0x38.0x26.2cm

Characteristics Table

Product Kind	Brake Fluid DOT4 LV
Type	Low Viscocity ISO Class6
Based	Glycol Ether
Color	Amber

Meets the standards recommended by automobile manufacturers

・VW ・MB ・PORSCHE ・FORD ・GM
・JAGUAR ・RENAULT ・BMW etc

* Although it is a product for European cars, it can be used with confidence for American cars (FORD, GM, etc.)
* Although we have not obtained all manufacturer approvals or standards, please be assured that it has the performance to clear.
* Except for the fact that silicon-based brake fluid is used in a limited number of vehicles such as Harley Davidson, most passenger cars and motorcycles equipped with hydraulic braking systems are used glycol-based (non-mineral oil-based) brake fluid.

TCL
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Superior Brake Fluid DOT4 LV

LOW VISCOSITY BRAKE FLUID

For European Cars

Maximize the performance of your car

DOT4 LV is necessary in showing best performance for European Cars

FAQ

Please see our website for details.

Q. What is the characteristic of Superior Brake Fluid DOT4 LV?

A. DOT-4 LV is the Low Viscosity type, and for the vehicle which electronic devices such as ESP (Electronic Stability Program), ABS (Anti-lock braking System), ASR (Anti-Slip Regulation) were attached to brakes function for the safety improvement of the car, it shows very superior performance, and it characterizes it to be suitable for the movement of the latest braking system.
This type of Brake Fluid is recommended for European cars in particular because of showing their original performance.

Q. Please tell me about the specification of DOT4 LV Superior Brake Fluid.

A. This product acquires DOT4 of the DOT standard established in "American Federal Motor Vehicle Safety Standards" (FMVSS) and JIS-K 2233 prescribed BF-4 standard of "Japanese Industrial Standards " (JIS), and Class 6 standard of "International Organization for Standardization"(ISO).
As Superior Brake Fluid DOT4LV is produced in JIS authorization factory and passes DOT and Japanese Industrial Standards, ISO standard, we recommend it with confidence.

Q. What changes by having good low temperature fluidity?

A. There is an item measuring kinetic viscosity at -40 degrees Celsius in the standard of Brake Fluid even if brakes are used in cold districts and the winter season so that a braking system can operate normally. It may be said that Brake Fluid with the low kinetic viscosity is superior in responsiveness, communicability. Superior Brake Fluid DOT4 LV has lower -40 degrees Celsius kinetic viscosity with 628cst (※ representative figure) than general DOT4, and even a low temperature level Superior Brake Fluid DOT4 LV shows the best performance.

Q. What kind of vehicle is it recommended to?

A. In recent years, Brake Fluid carries a sensitive role on EBD, TCS including ABS carried by most vehicles because delicate control is required by the spread of brakes servomechanisms and the evolution of these electronic devices.
From this, it is in an important factor when it operates a safety device incorporated in a braking system even in the low temperature area that kinetic viscosity is severer than the normal temperature that is in an always soft state has superior fluidity. It may be said that it is most suitable for the vehicle with these functions.

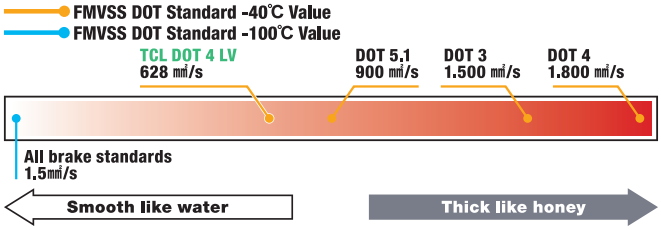
Q. Are there any problem if Superior Brake Fluid DOT4 LV is used for Japanese or American car not European car?

A. There is no problem at all. It can be used as a replacement general DOT3 and DOT4.

Q. Please tell me the exchange cycle of Superior Brake Fluid DOT4 LV.

A. Because there is absorbency in Brake Fluid, the boiling point lowers in around two years and makes at great risk of the vapor lock. It is said that the most important maintenance is periodic gross quantity exchange, and Superior Brake Fluid DOT4 LV is the same. However, the early exchange would be recommended when deterioration progress by use environment and the situation from the last time exchange even if it is less than two years. When the color of the liquid turns black, and a change of color is greatly seen other than the black, the early exchange is also recommended.

TCL DOT4 LV Viscosity comparison



Brake fluid viscosity is measured at two points.
The first point is measured at 100℃ and the second point is measured at -40℃. At the first point, 100℃, most brake fluid flows smoothly like water, and the kinematic viscosity is set to 1.5 ㎟/s or more. At -40℃, the brake fluid becomes "thick" and it is difficult to ensure that it flows freely.The above-mentioned characteristics at -40℃ are very important because recent cars are equipped with advanced brake control and traction control, and it is necessary to use these technologies in extremely cold environments.For this reason, most recent European cars are used "DOT4 LV Grade",which also addresses the need for low temperature viscosities to reduce ABS cycle response times.

Automotive Glossary

●ABS (Anti-lock Braking-System)
When you step on the brakes, the tires rub against the road surface and the car stops, but if the road surface is wet with snow or rain, the friction between the tires and the road surface becomes weaker, making it difficult for the car to stop even if you step on the brakes.
It is a system that momentarily releases the brakes just before the friction weakens so that the car will stop well even if the road surface is wet, and always maximizes the friction between the tires and the road surface.
Actually, rather than improving the friction between the tires and the road surface, the steering wheel works while applying the brakes and the effect of avoiding danger is greater. ABS is installed in 98.9% of vehicles sold in 2019.

●EBD (Electronic Brake force Distribution)
A system that detects the difference in rotation between the front and rear wheels with a sensor and distributes the optimum braking effect to the front and rear wheels. In order to maximize the effect of ABS, it is especially installed in trucks and minivans where the load on the rear wheels changes greatly depending on the number of passengers and the load capacity.
When the load weight is heavy, the braking effect of the rear wheels is strengthened to suppress the vertical movement of the vehicle, and at the same time, the steering of the front wheels is also effective.
There is also a specification that makes this work on the left and right wheels and realizes a stable braking effect when turning a curve.

●ESP (Electric Stability Program)
Electronic Stability Control (ESP) is a mechanism that prevents skidding when the vehicle turns, and is the name for Ford, VW, Benz, Chrysler, Audi, and Suzuki.
This device is named by each car manufactures as follows.
Toyota: VSC, Nissan: VDC, Honda: VSA, Mazda: DSC, Mitsubishi: ASC, Subaru: VDC, Daihatsu: DVS
The mechanism to prevent skidding and spin by automatically giving brake instructions and engine output control to each wheel independently when it senses skidding of the vehicle body due to sudden steering operation when turning a curve.

●TCS (Traction Control System)
When the accelerator pedal is depressed, too much force may be applied to the road surface and the tires may spin. TCS is a device that prevents this occurrence and efficiently controls the driving force. When the speed sensor and computer mounted on the four wheels detect the tire slip, the engine output is reduced to control the driving force and suppress the tire slip. Not only is it effective on slippery roads such as bad weather and rough roads, but it can also run smoothly when turning curves. It is generally called TCS including Honda, but it is also called TRC in Toyota and TCL in Mitsubishi.

●ASR (Anti-Slip Regulation)
One of the kinds of traction control system. Adopted for vehicles with high engine output, it prevents from slipping tires by controlling both engine output and brakes.

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