

# TITAN FFL-4

Premium Performance DCTF. Specially developed for GETRAG/BMW Double Clutch Transmission with wet clutch.

## Description

TITAN FFL-4 is a special transmission oil that was developed and coordinated in exclusive partnership with GETRAG for the specific and diverse demands of GETRAG dual-clutch transmissions. The unique additive technology offers the attainment of optimum friction parameters even under the most taxing situations and torque leaps. The optimum choice of base oils ensures that the viscosity temperature performance is perfectly aligned. In combination with the optimized foaming patterns, this produces clean and extremely fast shifting results. TITAN FFL-4 offers outstanding possible wear protection. Consequently, it maintains optimum transmission functions for the lifecycle of the component.

## Application

TITAN FFL-4 was developed specifically for use in GETRAG's 7-speed dual-clutch transmission (longitudinal installation) with wet clutch, which is installed in a variety of BMW M class models.

The product must be homogenized before use. To warrant the perfect functions of the transmission, TITAN FFL-4 must not be blended with any other transmission oils under any circumstances. For safety and disposal information, please refer to the latest safety data sheet.

**Note:** This product has been previously marketed under PENTOSIN FFL-4.

## Advantages/Benefits

- Friction value characteristics specifically aligned with GETRAG dual-clutch transmissions → yields fastest possible shifting processes even under extremely taxing conditions and during sporty drives
- Combines optimum wear prevention with excellent friction stability
- Provides reliable corrosion and sludge protection
- Optimized foaming patterns → hydraulic clutch and shifting operations work optimally
- For exclusive use in dual-clutch transmissions of BMW M class models!

## Specifications

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#### Approvals

• GETRAG (PWA05043)

#### **FUCHS Recommendations**

- BMW 83 22 0 440 214
- BMW 83 22 2 147 477
- BMW 83 22 2 148 578
- BMW 83 22 2 148 579
- BMW 83 22 2 446 673
- FORD WSS-M2C936-A
- McLaren: MP4-12C
- MITSUBISHI DIA QUEEN SSTF-1
- PSA 9734 S2
- VOLVO 1161838

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ISO 14001

ISO 50001

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# **TYPICAL CHARACTERISTICS**

Density at 15°C	DIN EN ISO 12185	842 kg/m³
Kinematic viscosity at 40°C	DIN EN ISO 3104	35.8 mm²/s
Kinematic viscosity at 100°C	DIN EN ISO 3104	7.1 mm²/s
Viscosity index	DIN ISO 2909	167
Pour point	ISO 3016	-57 °C
Product Dyeing	DIN 10964	none

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GB-Stoke-on-Trent, Staffordshire, ST1 5HU contact-uk@fuchs-oil.com TS 504287 FM 58508 FM 609812 OHS 575079 EMS 71162 ENMS 621315 Health, Safety and Environment - information is provided for products in the relevant Safety Data Sheet. This provides guidance on potential hazards, precautions and first-aid measures, together with environmental effects and disposal of used products.

While the information and figures given here are typical of current production and conform to specification, minor variations may occur. No warranty expressed or implied is given concerning the accuracy of the information or the suitability of the products