

## **AUTOMOTIVE GEAR OIL**



### Technical Data Sheet

# SHIFT ULTRA FE

#### PRODUCT DESCRIPTION:

Shift Ultra FE is a fully synthetic fluid developed specifically to meet ZF extended drain intervals requirements (540.000 km) and is recommended for use in all ZF commercial manual and automated gearboxes, whether synchronized or non- synchronized, running under the most severe conditions of load, speed and temperature. It can be recommended in other manual transmissions requiring API GL-4 and is particularly suitable for severe applications where loads and temperatures are higher.

#### APPLICATION:

Shift Ultra FE is specifically developed for all ZF gearboxes with or without Intarder allowing a drain interval up to 540.000 km. This lubricant is particularly suited for latest ZF gearboxes with Carbon synchronization (ZFTE-ML 01E) and for ZF gearboxes with Molybdenum synchronization (ZFTE-ML 01E), and for ZF gearboxes with Molybdenum synchronization (ZFTE-ML 01E). Shift Ultra FE 75W-80 meets the requirements of VOLVO 97307 (Drain interval up to 400.000 km), MAN 341 type Z5 (Drain interval up to 500.000 km) with or without Intarder, Retarder application VOITH CLASS C, MAN 341 type VR and MB 235.28. Shift Ultra FE is also suitable for extended drain intervals on gearboxes of commercial vehicles from Renault Trucks, DAF, leveo and for all commercial vehicles equipped with manual and automated gearboxes and any application requiring an API GL-4 level of performance.

#### FFATURES & BENFFITS:

- Excellent frictional characteristics with carbon, sinter bronze and molybdenum synchronizers provides improved shift quality and extends component life.
- Reduced cost of maintenance due to extended drain intervals.
- · Excellent lubrication at low and high temperatures.
- Excellent protection of gearboxes against wear and corrosion due to extreme-pressure properties of oil.
- Excellent low temperature fluidity due to a high viscosity index, generating benefits during cold starts and limiting drag losses and fuel consumption.
- Improved gear engagement.
- Excellent thermal and oxidative stability extends the life of transmission and lubricant.

#### PERFORMANCE LEVELS / MEETS OR EXCEEDS:

| SAE GRADES | 75W-80                               |  |  |
|------------|--------------------------------------|--|--|
| API        | GL-4                                 |  |  |
| VOITH      | CLASS C                              |  |  |
| VOLVO      | 97305/ 97307                         |  |  |
| MAN        | 341 E3/Z3/Z4/Z5                      |  |  |
| MB         | 235.28                               |  |  |
| ZF         | TE-ML 01E/02E/16P/01L/02D/02L/16K/08 |  |  |

#### TYPICAL PROPERTIES:

| PARAMETERS           | ASTM  | UNIT  | SHIFT ULTRA FE |
|----------------------|-------|-------|----------------|
|                      |       |       | 75W-80         |
| KV@ 104°F /40°C      | D7042 | cSt   | TBR            |
| KV @ 212°F /100°C    | D7042 | cSt   | 9.4            |
| Viscosity Index      | D2270 | -     | 140            |
| SP. Gravity @15°C    | D4052 | g/cm3 | TBR            |
| Flash Point (min)    | D92   | °C    | 200            |
| Pour Point (max)     | D97   | °C    | -42            |
| Brookfield Viscosity | D2983 | ср    | 50,000(-40C)   |

#### **HEALTH & SAFETY, ENVIRONMENT:**

Prolonged and repeated contact with oil may cause skin disorders. Avoid contact. Wash immediately with soap and water. Do not discharge used oil in to drains or the environment. Dispose to an authorized used oil collection point. For further Information on Safety Guidelines please refer to MSDS available on our website www.lubrex.net

#### **HEALTH & SAFETY:**

This product is not likely to present any significant health or safety hazards when properly used in the recommended application and good standards of personal hygiene are maintained. Reference is made to the Safety Data Sheet (SDS) which is available on request via your local sales office or via the internet www.lubrex.net

#### PROTECT THE ENVIRONMENT:

Take used oil to an authorized collection point. Comply with local regulation. Do not discharge into drains, soil or water.

#### STORAGE:

We recommend to store all packages under cover. In case outside storage is unavoidable, drums should be laid horizontally to avoid the possible ingress of water and damage to drum markings. Products should never be stored above 60°C, exposed to hot sun or freezing conditions.

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