

Delo Syn-TDL SAE 75W-90

Premium performance fully synthetic Total Driveline Lubricant

Product description

Delo® Syn-TDL SAE 75W-90 is a premium performance fully synthetic Total Driveline Lubricant offering extended drain capability, designed for API GL-4 and API GL-5 applications, and offers good thermal stability in higher temperature operations.

Delo Syn-TDL SAE 75W-90 is formulated with fully synthetic base oils in combination with an advanced high performance additive system.

Customer benefits

- Specially tuned friction characteristics make the product suitable for use in many synchronised manual transmissions and final drives, allowing inventory rationalisation
- Offers significantly longer service than conventional mineral gear oils in many applications - up to twice as long in transmissions and three times as long in drive axles
- Long-drain capability helps reduce overhaul and maintenance downtime
- High performance advanced additive system provides reliable extreme pressure protection and wear resistance
- Low-temperature fluidity offers component protection by allowing rapid oil circulation during cold weather start-up
- High Viscosity Index and good shear stability help provide viscosity and film thickness sufficient for effective high temperature lubrication throughout fluid service life



Product highlights

- **Suitable for many synchronised manual transmissions and final drives**
- **Long-drain capability**
- **Offers extended service capabilities**
- **Provides reliable EP protection and wear resistance**
- **Offers rapid oil circulation during cold start-up**
- **High Viscosity Index and good shear stability**

Selected specification standards include:

| | |
|--------|----------------|
| API | Bosch |
| DAF | Detroit Diesel |
| MAN | Mercedes-Benz |
| NATO | SAE |
| Scania | Volvo |
| ZF | |

Applications

- Delo Syn-TDL SAE 75W-90 is designed for use in automotive manual transmissions and hypoid drive axles which require a fluid with API GL-4, GL-5 or MT-1 performance. It is approved against standard SAE J2360 (former MIL-PRF-2105E).
- The thermal stability makes Delo Syn-TDL SAE 75W-90 suitable for use in applications with higher operating temperatures than is possible when using mineral gear oils. The special characteristics of the synthetic base oils lead to a reduction in the operating temperature, further extending the service capability in arduous operating conditions, or improving fuel economy in normal service conditions. It is capable of significantly longer service intervals than conventional mineral gear oils in many applications: up to twice as long in transmissions and more than three times as long in drive axles.
(The precise service interval varies according to application and service severity – refer to the manufacturers' literature for further details).
- Delo Syn-TDL SAE 75W-90 is not recommended for use in ZF transmissions fitted with interarders (this includes some models from constructors such as DAF and MAN). For these exceptions, use an approved fluid such as Delo Syn-MTF XZ 75W-80.

Approvals, performance and suitable for use

Approvals

- Detroit Diesel DFS Axle Gear Oil Specification 93K219.01
- MAN 341 Type Z2 ^[15]
- MAN 342 Type S1 ^[15]
- Mercedes-Benz MB-Approval 235.8
- SAE J2360 ^[2]
- Volvo 97312 ^[12]
- ZF TE-ML 02B ^[4]
- ZF TE-ML 05A ^[4]
- ZF TE-ML 12L ^[4]
- ZF TE-ML 12N ^[4]
- ZF TE-ML 16F ^[4]
- ZF TE-ML 17B ^[4]
- ZF TE-ML 19C ^[4]
- ZF TE-ML 21A ^[4]

Performance

- API GL-4

- API GL-5
- API MT-1
- Bosch TE-ML 08 ^[12]
- DAF Gearbox oil for Eaton gearboxes ^[5]
- DAF Gearbox oil for ZF gearboxes ^[1]
- DAF Rear axle without hub reduction ^[6]
- DAF Rear axle with hub reduction ^[7]
- MAN 3343 Type S ^[8]
- NATO 0-226
- Scania STO 1:0 ^[3] *
- Scania STO 1:1 G
- Scania STO 2:0 A FS ^[3]
- ZF TE-ML 07A ^[9]
- ZF TE-ML 12B ^[10]

Recommendations

- MAN 341 Type E3 ^[13]
- ZF TE-ML 05B ^[11]
- ZF TE-ML 21B ^[11]

[1] ZF gearboxes without interarder, standard changing interval.

[2] Approval number: PRI GL 0507.

[3] Axles in light- and medium-loaded long-distance applications (operation types 0:0, 0 and 1). Other axle applications require higher viscosity fluids.

[4] ZF registration number: ZF003353.

[5] Eaton gearbox applied in vehicle series LF45/55, 65/75/85 CF, CF 65/75/85; extended changing interval.

[6] Except for type V200/V400 (requires an SAE 85W-140 oil). Extended changing interval.

[7] Except for type 1356 (requires special product). Standard changing interval.

[8] Formerly approved. MAN 3343 Type S is now obsolete and has been replaced by 341 Type E3 (now obsolete) and 341 Type Z2 (manual transmissions), and 342 S1 (axles and transfer cases).

[9] Products meeting the necessary performance requirements are approved for use by ZF, but there is no product listing.[10] ZF has transferred this approval from TE-ML 12B to a new class, TE-ML 12N, which is a higher performance level.

[11] In April 2017, ZF combined class TE-ML 05B with class TE-ML 05A, and class TE-ML 21B with class TE-ML 21A.

[12] List formerly administered by ZF. Products meeting the necessary performance requirements are approved for use, but there is no product listing.

[13] Volvo approval number: 039.

[14] The product meets all of the requirements, but MAN made this specification obsolete at the end of 2016.

[15] MAN approval number: TUC 3419/97.

| Typical test data | | |
|---|--------------|---------|
| Test | Test Methods | Results |
| Shelf Life: 60 months from date of filling indicated on the product label. | | |
| Viscosity, Kinematic, 100°C, mm ² /s | ASTM D445 | 14.7 |
| Viscosity, Kinematic, 40°C, mm ² /s | ASTM D445 | 98 |
| Viscosity, Brookfield, -40°C, mPa.s | ASTM D2983 | 56,000 |
| Viscosity Index | ASTM D2270 | 157 |
| Density, 15°C, kg/l | ASTM D4052 | 0.868 |
| Flash Point COC, °C | ASTM D92 | 202 |
| Pour Point, °C | ASTM D5950 | -54 |

The typical test data set out above does not constitute a specification. It is indicative only and can be affected by allowable production tolerances. Chevron may modify this test data. Modified data will supersede all previous data, so please ensure you refer to the latest version of this Product Data Sheet (PDS).

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