

TECHNICAL DATA

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386 SynTuff® HD-MTF Full Synthetic SAE 40

SynTuff® HD-MTF Full Synthetic is a specially formulated synthetic lubricant designed for fuel efficiency, extended drain and severe service in heavy duty commercial vehicle transmissions which require a **non-EP transmission lubricant**. It is specially formulated to protect higher torque transmissions coupled with increased horsepower engines.

SynTuff® HD-MTF Full Synthetic is blended from a unique combination of select synthetic base fluids in combination with a premium, proprietary, non-EP, multifunctional additive system to provide the following performance benefits:

PERFORMANCE

- Improved fuel efficiency
- o Excellent friction retention, friction durability, and shear stability
- Smooth transmission operations throughout extended drain intervals
- High viscosity index and low pour point for superior high and low temperature performance

DEPOSIT PROTECTION

- Excellent thermal and oxidation stability to resist deposit and sludge formation.
- Reduced sump operating temperatures.

WEAR PROTECTION

- o Excellent protection from corrosion, foaming, rust, and wear.
- o Excellent non-EP, anti-wear protection for extended transmission performance

Micron Moly®, a proven friction reducer, is added to SynTuff® HD-MTF Full Synthetic to provide boundary lubrication. Micron Moly®, a liquid soluble type moly, plates itself to the metal surfaces of the gears and bearings. Once plated, Micron Moly® forms an indestructible, long-lasting, solid lubricant film capable of withstanding pressures up to 500,000 psi. This solid lubricant film, once plated to the gears and bearings, will reduce friction, vibration, and wear, thus extending equipment life.

SynTuff® HD-MTF Full Synthetic transmission fluid is recommended where low temperatures, wear, or heat present major problems and a non-EP lubricant is required. Typical usage includes transmissions, transfer cases, and wheel end hubs. Recommended commercial vehicle applications include line haul, vocational, off-road, pick-up and delivery, and buses.

SynTuff® HD-MTF Full Synthetic is a manual transmission fluid that meets or exceeds all performance requirements and is suitable for use for the following specifications:

- API Service Category MT-1
- Eaton PS-386 (after factory warranty and after extended warranty)*
- Eaton PS-164 Rev 7*
- International TMS 6816*
- Mack TO-A Plus*
- Meritor O-81 (Publication TP-90014)*
- Roadranger extended drain*
- Spicer transmission extended drain*
- Dana synchronized and non-synchronized transmissions
- ZF Freedomline*

*The use of OEM names or specifications do not represent approval, recommendation, or licensing by the OEM. This product is suitable for use for the specifications listed.

SynTuff® HD-MTF Full Synthetic is not recommended for use in hypoid gear applications in differentials and final drives where an API GL-5 or MIL-PRF-2105E gear lubricant is specified.

Do not use SynTuff® HD-MTF Full Synthetic in automatic transmissions including Allison transmissions and those transmission applications that require the use of an API GL-4 type gear lubricant.

TYPICAL PROPERTIES

SAE Grade	SAE 40
Specific Gravity 60°F (ASTM D4052)	0.8523
Viscosity, cSt (ASTM D445)	
100°C	15.30
40°C	94.29
Viscosity Index (ASTM D2270)	172
Viscosity @ -30°C (ASTM D2983), cP	15,450
Viscosity @ -40°C (ASTM D2983), cP	104,300
Pour point, °C (°F) (ASTM D97)	-43 (-45.4)
Flash point, °C (°F) (ASTM D92)	238 (460)
API gravity, 15.6/15.6°C (ASTM D287)	34.48
Noack Volatility-Procedure A (ASTM D5800), %	14.54
Four Ball Wear	0.850 (7.09)