

# **TECHNICAL DATA**

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# 380 SynTuff™ MaxShift Full Synthetic SAE 75W-80

SynTuff<sup>™</sup> MaxShift Full Synthetic 75W-80 is a premium, full synthetic, heavy-duty, on-road transmission fluid that is designed for automated manual transmissions. SynTuff<sup>™</sup> MaxShift Full Synthetic 75W-80 is specifically formulated for use in Mack® mDRIVE<sup>™</sup> and Volvo I-Shift transmissions that are no longer under warranty nor have an extended warranty associated with them.

SynTuff<sup>™</sup> MaxShift Full Synthetic 75W-80 is blended from a unique combination of select synthetic base fluids in combination with a premium, proprietary, thermally stable, and durable, multifunctional additive system to provide the following performance benefits:

### PERFORMANCE

- Optimized and stable frictional properties for smooth and rapid gear shifting
- High viscosity index and low pour point
- Excellent low-temperature fluidity that allows for rapid circulation, easier start-up, and reduced stress on the transmission during low-temperature startup and operation.
- o Extended drain and service intervals
- Improved fuel economy benefits

## **DEPOSIT PROTECTION**

- Excellent thermal and oxidation stability, which contributes to the inhibition of the formation of sludge, varnish, and lacquer deposits on critical transmission components.
- o Excellent seal and materials compatibility and resistance to foaming

### WEAR PROTECTION

- Excellent rust and corrosion protection to ferrous and yellow metals present in the transmission
- Excellent protection against gear and bearing scuffing, pitting, and adhesive wear
- Exceptional shear stability to help maintain a constant viscosity and film strength for better wear protection, especially during severe operating conditions

Micron Moly®, a proven friction reducer, is added to SynTuff<sup>™</sup> MaxShift Full Synthetic 75W-80 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.

Micron Moly® also provides a smooth finished surface on all moving parts of the automated manual transmission. This smooth finish minimizes the action of cold welding and vibration, which can occur during start-up after the automated manual transmission has been standing idle and during periods of high shock loading. This, in turn, lessens starting loads and peak power demand, thus resulting in realistic fuel economy cost savings.

SynTuff<sup>™</sup> MaxShift Full Synthetic 75W-80 is recommended for use in heavy-duty on-road automated manual transmissions, SynTuff<sup>™</sup> MaxShift Full Synthetic 75W-80 is suitable for use and meets the requirements for the following specifications, and applications:

- Volvo 97307 and 97318 (I-Shift)
- Mack® mDRIVE™
- Older Volvo and Mack VT-type transmissions
- MAN 341 Type E4
- Applications in regions where severe winter temperatures are encountered
- API MT-1

SynTuff<sup>™</sup> MaxShift Full Synthetic 75W-80 is not recommended or suitable 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<sup>™</sup> MaxShift Full Synthetic 75W-80 in automatic transmissions including Allison transmissions and those transmission applications that require the use of an API GL-4 type gear lubricants

#### **TYPICAL PROPERTIES**

SAE Grade	75W-80
Specific Gravity @ 60°F/15.5°C (ASTM D4052)	.8395
Specific Gravity, lbs./gallon @ 60°F/15.5°C	7.01
Viscosity cSt @ 40°C (ASTM D445)	60.58
Viscosity, cSt @ 100°C (ASTM D445)	10.69
Viscosity Index (ASTM D2270)	169
Brookfield Viscosity, cP @ -40°C	36,305
Flash Point °F/°C (ASTM D92)	416°F/213°C
Pour Point °F/°C (ASTM D5950)	-62°/-52°
Shear Stability (Viscosity after Shearing) – KRL, 20 hours, CEC L-45A ISO 3104 Viscosity, cSt @ 100°C	9.97