



DESCRIPTION

TRIAX ATF 689 is a premium full-synthetic low-viscosity automatic transmission fluid engineered specifically for European vehicles equipped with ZF 6HP, 8HP, and 9HP multi-speed gearboxes. The formulation leverages state-of-the-art friction modifiers on shear-stable synthetic base oils to deliver factory-level shift quality, exceptional clutch and gear protection, and consistent frictional performance under all operating conditions. Designed for extended drain intervals up to 100,000 miles — or fill-for-life service where the OEM does not mandate a specific interval — the synthetic chemistry handles thermal stress and cold-temperature startup, prevents clutch glazing, valve-body wear, and gear scuffing, and maintains stable viscosity across the full operating range of modern multi-speed automatic transmissions.

PERFORMANCE HIGHLIGHTS

- Qualifies for fill-for-life service in OEM applications without a specified drain interval; 100,000 miles extended drain capability in scheduled-service applications*
- **Cold flow to -60 °F** for instant cold-start torque-converter engagement; **VI 172** holds shift quality stable from sub-zero starts through sustained high-temperature operation
- **Shear-stable synthetic chemistry** protects clutch packs, valve bodies, and planetary gear sets; prevents clutch glazing, gear scuffing, and slip-induced heat generation well beyond OEM expectations
- Exceptional frictional stability eliminates shudder, gear chatter, and torque-converter vibration under extreme load and temperature
- Consistent shift quality and seamless gear engagement across all operating conditions; maintains optimal friction levels to prevent clutch slippage
- Universal seal compatibility with all elastomer materials used in modern ZF gearboxes; no seal swell, hardening, or leak development
- Zero foaming under sustained operation; no air entrainment that could compromise hydraulic pressure or shift quality
- Direct replacement for ZF Lifeguardfluid 6, 8, and 9; backwards compatible across ZF S671 090 255, 312, and 399 specifications

**Drain interval represents maximum capability in mechanically sound transmissions with regular service. Consult OEM service guidelines for vehicle-specific intervals; fill-for-life service is appropriate only where the OEM does not mandate a specified drain interval.*

SPECIFICATIONS & APPLICATIONS

TRIAX ATF 689 is purpose-built as a direct replacement for ZF Lifeguardfluid 6, 8, and 9, covering all vehicles equipped with ZF 6HP, 8HP, and 9HP multi-speed automatic transmissions. Compatible with European, North American, and Asian makes including BMW, Audi, Volkswagen, Jaguar, Land Rover, Rolls-Royce, Maserati, Fiat, Dodge / Chrysler, Honda, and Acura ZF-equipped models.

Meets or exceeds the following OEM and industry specifications:

- ZF Lifeguardfluid 6 (S671 090 255), 8 (S671 090 312), 9 (S671 090 399); ZF TE-ML 11; ZF 9HP48
- BMW L12108 (83 22 2 152 426); BMW 83 22 2 305 397; BMW 83 22 2 289 720; ATF L12108
- VW / Audi G 060 162 A1 / A2 / A6; G 055 162 (A2, A6)
- Jaguar 02JDE 26444; Land Rover LR 023288, LR 023289
- Mopar / Chrysler 68157995AA, AB, AC (ZF 6HP and 8HP)
- Mopar 68218925AA (ZF 9HP)
- Fiat 9.55550-AV5
- Honda 08200-9017 (ATF Type 3.1)
- Acura 08200-9016A (ATF Type 3.0)
- Suitable for BMW, Audi, VW, Jaguar, Land Rover, Rolls-Royce, Maserati, and Dodge / Chrysler models with ZF gearboxes

TYPICAL PROPERTIES

Parameter (Test Method)	Typical Value
Viscosity, Kinematic @ 40 °C, cSt (ASTM D445)	24.5
Viscosity, Kinematic @ 100 °C, cSt (ASTM D445)	5.5
Viscosity Index (ASTM D2270)	172
Flash Point, °C (°F) (ASTM D92)	221 (430)
Pour Point, °C (°F) (ASTM D97)	-51 (-60)
Specific Gravity @ 60 °F (ASTM D1298)	0.845

These are typical values. There may be small differences in actual values which are a normal part of production and do not affect product performance.

BMW ATF CROSS-REFERENCE

TRIAX ATF 689 — DIRECT SUBSTITUTE FOR BMW ATF 2, ATF 3+ & ATF 8

TRIAX ATF 689 is a direct substitute for the following BMW factory transmission fluids. Use this cross-reference to match ATF 689 to the correct BMW fluid name and BMW OE part number across the ZF 6HP, 8HP, and 9HP transmission families.

BMW OEM Fluid	BMW OE Part Number(s)	ZF Transmission Family
BMW ATF 2 (prev. M-1375.4 / TF 1375.4)	Main: 83 22 0 142 516 . 1 L service: 83 22 2 305 396; 83 22 2 220 445. Covers 6HP19/21/26/28/32 (ZF TE-ML 11).	ZF 6HP
BMW ATF 3+	Current: 83 22 5 A12 A00 . Legacy cross-refs: 83 22 2 289 720; 83 22 2 305 397; 83 22 2 152 426. Also ATF 3+ 1 L 83 22 5 A12 A00.	ZF 8HP — standard non-hybrid (8HP45/50/70/75/76/90/95)
BMW ATF 3+	83 22 5 A12 A00 . Covers 9HP48 / 9HP50 and certain 8HP PH variants.	ZF 9HP / some newer 8HP PH variants
BMW ATF 8	83 22 5 A28 F03 . Separate BMW fluid from ATF 3+; for 8HP60/80 and related hybrid / mild-hybrid variants.	ZF 8HP newer hybrid / mild-hybrid (8HP60/8HP80/8P80/8P100)

Cross-reference is provided for compatibility guidance only. BMW ATF 8 / ZF Lifeguard Hybrid 2 is a distinct hybrid-transmission fluid; always confirm the correct fluid against the vehicle and transmission OEM fill specification before service. TRIAX ATF 689 is not licensed, approved, certified, or endorsed by BMW or ZF — no affiliation, certification, or endorsement is claimed or implied. All BMW and ZF fluid names and part numbers are trademarks of their respective owners, used here solely for descriptive cross-reference and compatibility purposes.