



HCF Professional

Full Synthetic Haldex® Clutch Coupling Fluid

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DESCRIPTION

TRIAX HCF Professional is a fully synthetic, low-viscosity hydraulic coupling fluid engineered for the electronically controlled wet multi-plate clutch systems used in transverse all-wheel-drive vehicles. The formulation leverages a precision-balanced friction modifier package on a premium synthetic base oil to deliver the calibrated μ -vs-velocity friction curve, thermal stability, and seal compatibility that modern AWD couplings require. Built from individually selected chemical components rather than a generic off-the-shelf additive pack, HCF Professional matches the friction profile, viscosity behavior, and elastomer compatibility requirements of VW/Audi specifications G 060 175 and G 055 175 A2 across all five generations of Haldex® couplings — eliminating stick-slip shudder, preserving pump and solenoid response, and protecting the friction surfaces over extended service intervals.

PERFORMANCE HIGHLIGHTS

- **Precision friction curve.** Engineered to deliver the slightly positive μ -vs-velocity slope required by modern wet-clutch couplings, eliminating stick-slip shudder during tight-radius turns and progressive engagement events.
- **Multi-generation compatibility.** Single fluid covers Haldex® Generations 1 through 5, including both G 060 175 and G 055 175 A2 application requirements — simplifying inventory for service shops and ensuring correct specification across the full VW/Audi/Volvo AWD install base.
- **Full synthetic thermal stability.** Premium synthetic base oil resists oxidation, viscosity breakdown, and varnish formation under the elevated temperatures generated by extended high-torque transfer events, protecting the pump, solenoid, and clutch pack across long service intervals.
- **Shear-stable low viscosity.** Maintains specified viscosity grade under sustained shear, preserving the calibrated hydraulic response of the Haldex® pump and solenoid system for consistent engagement timing throughout the service interval.
- **Seal and elastomer compatibility.** Formulated for full compatibility with NBR and FKM seal materials used in Haldex® couplings, preventing the swelling, hardening, and leakage that result from incorrect or non-spec fluids.
- **Wet-clutch optimized additive chemistry.** Ashless anti-wear and corrosion-inhibitor package selected to protect friction surfaces, pump internals, and steel components without interfering with friction modifier performance — the failure mode that produces shudder in fluids built with conventional AW chemistries.

SPECIFICATIONS & APPLICATIONS

TRIAX HCF Professional is purpose-built to be a suitable replacement for OEM Haldex® coupling fluids across the VW Group, Volvo, Ford, and Land Rover transverse all-wheel-drive fleet, covering all five generations of Haldex® couplings on a single fluid platform.

Meets the requirements of the following OEM specifications and applications:

- VW G 060 175
- VW G 055 175 A2
- Haldex® AOC Generations 1, 2, 3, 4 & 5
- Škoda 4x4 / SEAT 4Drive (transverse)
- Replaces OEM Haldex® service fluids
- Volkswagen 4Motion (transverse)
- Audi Quattro (transverse — A3, S3, TT, Q3)
- Volvo XC60, XC70, XC90, S60, S80 AWD
- Ford Kuga, Focus, Escape AWD
- Land Rover Freelander 2 / LR2

TYPICAL PROPERTIES

Parameter (Test Method)	HCF Professional
Viscosity, Kinematic @ 40 °C, cSt (ASTM D445)	25.87
Viscosity, Kinematic @ 100 °C, cSt (ASTM D445)	5.68
Viscosity Index (ASTM D2270)	170
Flash Point, °C (°F) (ASTM D93)	180 (356)
Pour Point, °C (°F) (ASTM D97)	-50 (-58)
Brookfield Viscosity @ -40 °C, cP (ASTM D2983)	5490
Density, g/ml (ASTM D4052)	0.848
Color (ASTM D1500)	0.9

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.