

## Product Description

**Reliant FS™** engine oils have been specifically formulated to meet today's heavy-duty diesel OEM (Original Equipment Manufacturer) requirements and stringent API Commercial Category CK-4 specifications. Blended with state-of-the-art, technologically advanced additives and superior quality synthetic base oils, **Reliant FS™** engine oils surpass the higher performance demands of model year 2017 and newer heavy-duty diesel engine hardware. The API Commercial Category CK-4 offers backwards compatibility for older diesel engines requiring older, obsolete Commercial classifications including CJ-4, CI-4 Plus, CI-4 and CH-4. D-A **Reliant FS™** engine oils promote robust engine cleanliness and protects against deposit formation. They also guard against viscosity increase by affording superior thermal / oxidation stability under extreme temperature 'severe service' (duty) operation and effectively minimize harmful oxidative conditions. D-A **Reliant FS™** also provides outstanding pumpability / flowability in extreme cold ambient environments. Additionally, the D-A **Reliant FS™** engine oils afford significant alkalinity or higher TBN (Total Base Number) to maximize acid neutralization and prevent harmful component corrosion. They also offer proven soot control and combat performance robbing oil degradation / viscosity breakdown. The D-A **Reliant FS™** engine oils maintain film strength and shear stability throughout intended service, equating to longer, more pronounced service drain intervals. D-A **Reliant FS™** engine oils are available in 5W-30 and 5W-40 viscosities, delivering exceptional fuel efficiency and potential increased horsepower benefits. The **Reliant FS™** 5W-40 is also suitable for use in gasoline powered, API Service Category related engines, making it an excellent option for mixed fleet (diesel / gasoline) commercial or personal vehicles requiring such.

## Product Features and Benefits

Carefully selected, high quality base oils designed for diesel engine service provide:

Reduced Oil Consumption

Improved control of engine wear through rapid oil flow on cold, ambient start

Proper metal-to-metal separation during high temperature / high load operation

Formulated to support the performance requirements of API Commercial Category CK-4 (5W-30 & 5W-40) as well as API Service Category SN (5W-40). Recommended for use in latest model diesel engines fueled with Ultra Low Sulfur Fuel and Low Sulfur Fuels. Contains the optimum amount of detergents to keep internal engine parts clean (minimize piston / cylinder deposits) and operating efficiently.

## Product Features and Benefits (cont.)

**Reliant FS™** 5W-40 API SN status supports BOTH modern and legacy diesel / gasoline engine requirements. The use of a shear stable polymer results in resistance to in-service viscosity loss, maintaining 'stay-in-grade' performance / viscosity protection under tough service conditions. Perfected formulation balance for reduced maintenance expense and support of engine manufacturer warranty service requirements. **Reliant FS™** Engine Oil composition has been designed to protect and provide extended life for various emissions / exhaust aftertreatment devices associated with today's modern diesel applications.

D-A **Reliant FS™** products support the performance requirements of most major OEM engine manufacturers.

**\*NOTE: The Reliant FS™ 5W-30 is not suitable for use in gasoline powered, spark ignited engines.**

## Typical Applications

### **Reliant FS™ 5W-30**

#### API Approvals

API CK-4 (Backwards Compatible)

#### OEM Approvals

CAT ECF-3 Renault RLD-4  
Ford WSS M2C171-F1 Volvo VDS-4.5  
Mack EOS-4.5

#### Meets the Performance Requirements of:

ACEA E9-16 Deutz DQC IV-10 LA  
Cummins CES 20086 JASO DH-2  
Daimler MB228.31 MTU Type 2.1  
DDC DFS 93K222

### **Reliant FS™ 5W-40**

#### API Approvals

API CK-4 (Backwards Compatible), API SN (Gasoline Engines)

#### OEM Approvals

CAT ECF-3 Mack EOS-4.5  
DDC DFS 93K222 Renault RLD-4  
Ford WSS-M2C171-F1 Volvo VDS-4.5

#### Meets the Performance Requirements of:

ACEA E9-16 Daimler MB228.31  
ACEA E6-12 Deutz DQC IV-10 LA  
ACEA E7-12 JASO DH-2  
ACEA E9-12 MTU Type 2.1  
Cummins CES 20086

## Typical Properties

SAE Viscosity Grade	J300	5W-30	5W-40
Viscosity			
@ 100°C, cSt	ASTM D445	11.6	15.2
@ 40°C, cSt	ASTM D445	69.9	92.2
Viscosity Index	ASTM D2270	161	174
HTHS Viscosity, cP @150 °C (min)	ASTM D4683	3.5	4.1
Pour Point, °F (°C)	ASTM D97	-44 (-42)	-38 (-39)
Flash Point, °F (°C)	ASTM D92	424 (218)	448 (231)
Sulfated Ash, Weight %	ASTM D874	1.0	1.0
Total Base Number	ASTM D2896	11.1	11.2
CCS @ -30°C, cP	ASTM D5293	6330	6120

### D-A Part Number:

Bulk	52251	52261
Tote – 330 Gal	52253	52263
Drum – 55 Gal	52252	52262
Bag-in-a-box – 6 Gal	N/A	52265
Pail (Plastic) – 5 Gal	52258	52268
Case – 4/1 Gal	N/A	52264