



HyFilm® LEO Heavy Duty uses state-of-the-art technology to protect modern diesel engines in harsh environments while maximizing fuel economy and extending service intervals, making it the engine oil of choice for sustainable fleets. **HyFilm LEO Heavy Duty** meets the latest API specifications for both diesel and gasoline engines as well the OEM requirements for Cummins, Mack, Volvo, Detroit Diesel, and other heavy duty engine manufacturers. Designed to meet the rigorous demands of modern high output, low emissions engines, **HyFilm LEO Heavy Duty** is also backward compatible to provide lubrication across the entire range of 4-stroke diesel engines.

HyFilm LEO Heavy Duty 5W-30 Official Approvals:

API CK-4, CJ-4, CI-4	API SN	Renault VI RLD-4
DDC Power Guard 93K222	Volvo VDS-4.5	Mack EO-S-4.5

HyFilm LEO Heavy Duty 5W-30 Meets or Exceeds:*

ACEA E9	Mercedes Benz 228.31	MAN 3677†
Cummins CES 20086	JASO DH-2	Ford WSS-M2C171-E
Caterpillar ECF-3	Deutz DQC IV-10 LA	

* Guaranteed to meet or exceed specifications, not officially licensed.

† Meets or exceeds engine test requirements only

PRODUCT ATTRIBUTE	TEST METHOD	TYPICAL PROPERTIES
SAE Grade	SAE J300	5W-30
Kinematic Viscosity, cSt @ 40°C	ASTM D445	73.2
Kinematic Viscosity, cSt @ 100°C	ASTM D445	12.1
Viscosity Index No.	ASTM D2270	163
CCS Viscosity, cP @ -30°C	ASTM D5293	6200
High Temp High Shear Viscosity, cP @ 150°C @ 10 ⁶ s ⁻¹	ASTM D4683	3.5
Density, kg/l @ 15.5°C	ASTM D1298	0.856
Pour Point, °F (°C)	ASTM D97	-44 (-42)
Flash Point, °F (°C)	ASTM D92	449 (232)
Noack Volatility, % wt. loss	ASTM D5800	12.0
TBN (Total Base Number)	ASTM D2896	10
TBN (Total Base Number)	ASTM D4739	7
Sulfated Ash, % wt.	ASTM D874	0.9
Sulfur, % wt.	ASTM D4951	0.26
Phosphorus, %wt,	ASTM D4951	0.078
Color		Amber

WARRANTY:

When properly stored and used in accordance with instructions, any material not satisfactory will be replaced with any product in our line on a dollar for dollar basis provided the account is paid in full when due and Hydrotex is notified in writing within 12 months of the date of the order by the customer.

Hydrotex® is a manufacturer and distributor of high performance lubricant and fuel improver solutions. As an employee owned company, we help our customers develop sustainable solutions designed to improve system reliability, save energy, limit pollution, extend fixed asset life, reduce maintenance costs and improve fuel efficiency. Our products and services leverage over 80 years of innovation resulting in superior lubrication solutions and high touch customer service.