

PRODUCT CATALOGUE

SAE OW-16 FULLY SYNTHETIC API SP



DEL OW-16 SP Innovative energy-saving low-viscosity engine oil of the latest generation on a bi-synthetic (PAO + esters) basis for modern gasoline engines. Designed in accordance with the latest API SP and ILSAC GF-6 standards, it is especially recommended for hybrid cars, but it is also suitable for non-hybrid, requiring oils of such viscosity and with similar performance properties.

PRODUCT PROPERTIES:

- Unsurpassed fuel economy in all modes due to ultra-low kinematic (at 100°C) and reduced high-temperature viscosity HTHS (at 150°C) and exceptional anti-friction properties.
- Highly effective additive package and low-viscosity bi-synthetic base provide confident cold start in the most severe conditions, which significantly reduces starting engine wear and idle wear.
- It does not form deposits in the combustion chamber, especially in the area of piston rings and valves, and due to its excellent washing and dispersing properties and the highest thermal oxidative stability, it effectively fights all types of deposits in all other engine components and keeps them clean throughout the entire interval between replacements.
- The ester oil components provide excellent anti-wear properties due to the exceptional strength of the oil film even at extreme operating temperatures, which, combined with excellent pumpability, significantly increases engine life even in "start-stop" driving modes.
- For turbocharged engines with direct injection, the unique formulation of the oil completely reduces to zero the
 effect of premature ignition of the LSPI (Low Speed Pre-Ignition) fuel mixture.
- Neutral to sealing materials. It eliminates leaks, in combination with reduced volatility provides extremely low
 oil consumption and has an increased drain interval.

SPECIFICATIONS SAE 0W-16

API GRADE	SP
DENSITY @ 15°C	0.846
VISCOSITY @ 40°C	34.8
VISCOSITY @ 100°C	6.9
VISCOSITY INDEX	163
FLASH POINT	220
POUR POINT	-45
TBN	8.5

TYPICAL CHARACTERISTICS

HONDA ULTRA GREEN, HONDA ULTRA NEXT, HONDA 08215-99974, HONDA 08232-P9951LHE, MITSUBISHI MZ102661, MITSUBISHI MZ102662, MITSUBISHI DIAQUEEN ECO PLUS, NISSAN HYBRID ENGINE, KLANM-01A04 EXTRA SAVE, TOYOTA 08880-11005

SAE OW-20 FULLY SYNTHETIC API SP

DEL OW-20 SP Innovative energy-saving premium bi-synthetic engine oil (PAO + esters) for modern gasoline engines. Designed to meet the requirements of American, Japanese and Korean automakers.

PRODUCT PROPERTIES:

- Exceptional fuel economy due to reduced high-temperature viscosity HTHS and optimal anti-friction properties.
- Highly effective additive package and low-viscosity bi-synthetic base provide reliable cold start in the most severe conditions, thereby significantly reducing engine starting wear.
- Due to its excellent washing and dispersing properties and the highest thermal oxidative stability, it effectively
 fights against all types of deposits and keeps engine parts clean throughout the entire interval between
 replacements.
- The ester oil components provide excellent anti-wear properties due to the exceptional strength of the oil film, which, combined with excellent pumpability, significantly increases engine life even in "start-stop" driving modes.
- For turbocharged engines with direct injection, a unique oil formulation reduces to zero the effect of premature ignition of the fuel mixture LSPI (Low Speed Pre-Ignition).
- It is used in engines with extended oil change intervals (Long Life) and conventional.





SPECIFICATIONS SAE 0W-20

API GRADE	SP
DENSITY @ 15°C	0.842
VISCOSITY @ 40°C	45.1
VISCOSITY @ 100°C	8.6
VISCOSITY INDEX	172
FLASH POINT	200
POUR POINT	-45
TBN	8.5

TYPICAL CHARACTERISTICS

GM DEXOS1 GEN2, FORD WSS-M2C947-B1, FORD WSS-M2C947-A, CHRYSLER MS-13340, CHRYSLER MS-6395, HONDA HTO-06, GM 6094M, INFINITI, LEXUS, MAZDA, SUZUKI, JAGUAR / LAND ROVER STJLR.51.5122

DEL OW-30 SP Innovative energy-saving premium bi-synthetic engine oil (PAO + esters) for modern gasoline engines. Designed to meet the requirements of American, Japanese and Korean automakers.

PRODUCT PROPERTIES:

• Exceptional fuel economy due to reduced high-temperature viscosity HTHS and optimal anti-friction properties. Highly effective additive package and low-viscosity bi-synthetic base provide reliable cold start in the most

severe conditions, thereby significantly reducing engine starting wear.

- Due to its excellent washing and dispersing properties and the highest thermal oxidative stability, it effectively fights against all types of deposits and keeps engine parts clean throughout the entire interval between replacements
- The ester oil components provide excellent anti-wear properties due to the exceptional strength of the oil film, which, combined with excellent pumpability, significantly increases engine life even in "start-stop" driving
- · For turbocharged engines with direct injection, a unique oil formulation reduces to zero the effect of premature ignition of the fuel mixture LSPI (Low Speed Pre-Ignition)
- It is used in engines with extended oil change intervals (Long Life) and conventional.





SPECIFICATIONS SAE 0W-30

DE	SP
@ 15°C	0.841
TY @ 40°C	66.6
TY @ 100°C	12.1
TY INDEX	178
TAIC	200
TAIC	-45
	7.8
	DE '@ 15°C TY @ 40°C TY @ 100°C TY INDEX DINT

TYPICAL CHARACTERISTICS

WSS-M2C947-B1, FORD WSS-M2C947-B1, FORD WSS-M2C947-A, CHRYSLER MS-13340, CHRYSLER MS-6395, HONDA HTO-06, GM 6094M, INFINITI, LEXUS, MAZDA, SUZUKI, JAGUAR / LAND ROVER STJIR.51.5122

DEL OW40 SP is formulated with fully synthetic base stocks and advanced technology additive system to provide extra high level of engine protection and performance. It is suitable for higher mileage gasoline and diesel powered modern automobiles requiring an API SP specification, where very high viscosity index oils are preferred to provide much longer oil drain intervals & fuel efficiency in modern engines. It provides maximum protection in engines operating under severe conditions, including high-performance turbo-charged, supercharged gasoline and certain diesel multi-valve fuel injected systems.

PRODUCT PROPERTIES:

- Excellent fuel economy & easy cold starts due to high fluidity at low temperatures.

 High viscosity index provides excellent resistant oil film, even at high engine operating temperatures.
- Excellent cleaning agents, reduces sludge and deposit formation which improves engine cleanliness. · Outstanding oxidation & thermal stability, reduces oil ageing & helps in extending oil drain intervals.
- Excellent wear protection for greater engine reliability and performance.

SPECIFICATIONS SAE 0W-40

API GRADE	SP
DENSITY @ 15°C	0.845
VISCOSITY @ 40°C	80.9
VISCOSITY @ 100°C	14.30
VISCOSITY INDEX	185
FLASH POINT	236
POUR POINT	-48
TBN	8

TYPICAL CHARACTERISTICS

GM DEXOS1 GEN2, FORD WSS-M2C947-B1, FORD WSS-M2C947-A, CHRYSLER MS-13340, CHRYSLER MS-6395, HONDA HTO-06, GM 6094M, INFINITI, LEXUS, MAZDA, SUZUKI, JAGUAR / LAND ROVER STJLR.51.5122





DEL 5W-20 SP Innovative energy-saving premium bi-synthetic engine oil for modern gasoline engines. Designed to meet the requirements of American, Japanese and Korean automakers.

PRODUCT PROPERTIES:

- Exceptional fuel economy due to reduced high-temperature viscosity HTHS and optimal anti-friction properties.
- · Highly effective additive package and low-viscosity synthetic base provide confident cold start in the most severe conditions, thereby significantly reducing engine starting wear.
- · Due to its excellent washing and dispersing properties and the highest thermal oxidative stability, it effectively fights against all types of deposits and keeps engine parts clean throughout the entire interval between replacements. Helps to remove previously formed deposits.
- The latest oil components provide excellent anti-wear properties due to the exceptional strength of the oil film, which, combined with excellent pumpability, significantly increases engine life even in "start-stop" driving
- · Compatible with the latest exhaust gas aftertreatment systems.
- A special low-viscosity base optimizes the operation of engines with direct injection systems, with turbocharging, as well as with various mechanisms for changing the valve timing (VTEC, i-VTEC, VVT-i, VVTL-i, CVVT, VVL, MIVEC, AVCS (AVLS), CVTCS and others.)
- It is used in engines with extended oil change intervals (Long Life) and conventional.

SPECIFICATIONS SAE 5W-20

API GRADE	SP
DENSITY @ 15°C	0.846
VISCOSITY @ 40°C	47.8
VISCOSITY @ 100°C	8.7
VISCOSITY INDEX	163
FLASH POINT	223
POUR POINT	-42
TBN	11.2

TYPICAL CHARACTERISTICS

GM DEXOS1 GEN2, HONDA HTO-06, GM 6094M CHRYSLER MS-6395, CHRYSLER MS-13340, JAGUAF STJLR.51.5122, LAND ROVER STJLR.51.5122, FIA' 9.55535-CR1, FORD WSS-M2C930-A, FORD WSS-M2C930-B, FORD WSS-M2C925-A, FORD FIAT FORD FORD FORD FORD WSS-M2C925-B, WSS-M2C945-B1, WSS-M2C948-B MAZDA, SUZUKI



DEL 5W-30 SP Innovative, energy-saving ester-containing fully synthetic premium engine oil for modern gasoline engines. Designed in accordance with the requirements of American, Japanese and Korean automakers specifically for engines with direct injection systems (GDI, D4, NEO-DI, CGI DISI, I-CDTI), turbocharged.

PRODUCT PROPERTIES:

- High fuel efficiency due to reduced viscosity and optimal anti-friction properties.
- · Highly effective additive package and synthetic base provide confident cold start in any conditions, thereby significantly reducing engine starting wear.
- Due to its excellent washing and dispersing properties and the highest thermal oxidative stability, it effectively fights against all types of deposits and keeps engine parts clean throughout the entire interval between replacements. - The presence of ester components in combination with optimal viscosity- temperature characteristics guarantees the highest strength of the oil film, which provides excellent anti-wear properties which, combined with excellent pumpability, significantly increase engine life even in the most severe operating conditions.
- Compatible with the latest exhaust gas aftertreatment systems.
 A special synthetic base optimizes the operation of engines with direct injection systems, with turbocharging, as well as with various mechanisms for changing the valve timing (VTEC, i-VTEC, VVT-i, VVTL-i, CVVT, VVL, MIVEC, AVCS (AVLS), CVTCS and others.)
- It is used in engines with extended oil change intervals (Long Life) and conventional.



SPECIFICATIONS SAE 5W-30

API GRADE	SP
DENSITY @ 15°C	0.848
VISCOSITY @ 40°C	66.2
VISCOSITY @ 100°C	11.2
VISCOSITY INDEX	161
FLASH POINT	235
POUR POINT	-42
TBN	8.5

TYPICAL CHARACTERISTICS

GM DEXOS1 GEN2, FORD WSS-M2C929-A, FORD WSS-M2C946-B1, FIAT 9.55535-CR1, HONDA HTO-06, GM 6094M, CHRYSLER MS-6395, CHRYSLER MS-13340, LEXUS, MAZDA, SUZUKI, ŚSANGYONG

DEL 5W-40 SP Innovative energy-saving premium bi-synthetic engine oil (PAO + esters) for modern gasoline engines. Designed to meet the requirements of American, Japanese and Korean automakers.

PRODUCT PROPERTIES:

· Exceptional fuel economy due to reduced high-temperature viscosity HTHS and optimal anti-friction properties. Highly effective additive package and low-viscosity bi-synthetic base provide reliable cold start in the most

severe conditions, thereby significantly reducing engine starting wear.

- Due to its excellent washing and dispersing properties and the highest thermal oxidative stability, it effectively fights against all types of deposits and keeps engine parts clean throughout the entire interval between replacements
- The ester oil components provide excellent anti-wear properties due to the exceptional strength of the oil film, which, combined with excellent pumpability, significantly increases engine life even in "start-stop" driving
- · For turbocharged engines with direct injection, a unique oil formulation reduces to zero the effect of premature ignition of the fuel mixture LSPI (Low Speed Pre-Ignition)
- It is used in engines with extended oil change intervals (Long Life) and conventional.





SPECIFICATIONS SAE 5W-40

API GRADE	SP
DENSITY @ 15°C	0.841
VISCOSITY @ 40°C	66.6
VISCOSITY @ 100°C	12.1
VISCOSITY INDEX	178
FLASH POINT	200
POUR POINT	-45
TBN	7.8

TYPICAL CHARACTERISTICS

GM DEXOS1 GEN2, FORD WSS-M2C947-B1, WSS-M2C947-A, CHRYSLER MS-13340, CHRYSLER MS-6395, HONDA HTO-06, GM 6094M, INFINITI, LEXUS, MAZDA, SUZUKI, JAGUAR / LAND ROVER STJLR.51.5122

DEL 10W40 SP is advanced technology engine oil blended in high performance synthetic basestocks fortified with precisely balanced additive system, specifically formulated to help deliver high level of performance and outstanding protection during long service. It is suitable for higher mileage gasoline and diesel fueled automobiles and light duty trucks requiring an API SP specification, where very high viscosity index oils are preferred to provide longer oil drain intervals in modern engines. It provides maximum protection in engines operating under severe conditions and protects against the potential for pre-ignition (LSPI) in these engines, including high-performance turbo-charged, supercharged gasoline and certain diesel multi-valve fuel injected systems.

PRODUCT PROPERTIES:

Excellent fuel economy & easy cold starts due to extreme fluidity at low temperatures.

High resistant oil film even at high engine operating temperatures.

Excellent detergency and dispersancy, reduces sludge formation which improves engine cleanliness.
Excellent oxidation & thermal stability, helps in extending oil drain intervals.

- Outstanding wear protection for greater engine reliability and performance.

 Outstanding protection & optimization of 3-way catalytic converters and due to its low Phosphorus content prevents them from poisoning, hence reduces NOx, HC and CO considerably

SPECIFICATIONS SAE 10W-30

API GRADE	SP
DENSITY @ 15°C	0.868
VISCOSITY @ 40°C	62.6
VISCOSITY @ 100°C	10.40
VISCOSITY INDEX	156
FLASH POINT	215
POUR POINT	-36
TBN	7.2

TYPICAL CHARACTERISTICS

GM DEXOS1 GEN2, FORD WSS-M2C947-B1, FORD WSS-M2C947-A, CHRYSLER MS-13340, CHRYSLER MS-6395, HONDA HTO-06, GM 6094M, INFINITI, LEXUS, MAZDA, SUZUKI, JAGUAR / LAND ROVER STJLR.51.5122



DEL 10W-40 SP is advanced technology engine oil blended in high performance synthetic basestocks fortified with precisely balanced additive system, specifically formulated to help deliver high level of performance and outstanding protection during long service. It is suitable for higher mileage gasoline and diesel fueled automobiles and light duty trucks requiring an API SP specification, where very high viscosity index oils are preferred to provide longer oil drain intervals in modern engines. It provides maximum protection in engines operating under severe conditions, and protects against the potential for pre-ignition (LSPI) in these engines, including high-performance turbo-charged, supercharged gasoline and certain diesel multi-valve fuel injected systems.

PRODUCT PROPERTIES:

- Excellent fuel economy & easy cold starts due to extreme fluidity at low temperatures.
- High resistant oil film even at high engine operating temperatures.
- Excellent detergency and dispersancy, reduces sludge formation which improves engine cleanliness.
 Excellent oxidation & thermal stability, helps in extending oil drain intervals.

- Outstanding wear protection for greater engine reliability and performance.
 Outstanding protection & optimization of 3-way catalytic converters and due to its low Phosphorus content prevents them from poisoning, hence reduces NOx, HC and CO considerably



SPECIFICATIONS SAE 10W-40

API GRADE	SP
DENSITY @ 15°C	0.870
VISCOSITY @ 40°C	95
VISCOSITY @ 100°C	14.30
VISCOSITY INDEX	155
FLASH POINT	230
POUR POINT	-36
TBN	7.2

TYPICAL CHARACTERISTICS

GM DEXOS1 GEN2, HONDA HTO-06, GM 60 CHRYSLER MS-6395, CHRYSLER MS-13340, JA STJLR.51.5122, LAND ROVER STJLR.51.5122, 9.55535-CR1, FORD WSS-M2C930-A, WSS-M2C930-B, FORD WSS-M2C925-A, FIAT FORD FORD FORD FORD WSS-M2C945-B1, WSS-M2C948-B MAZDA, SUZUKI



DEL OW-20 SN is formulated with fully synthetic base stocks and advanced technology additive system to provide extra high level of engine protection and performance. It is suitable for higher mileage gasoline and diesel powered modern automobiles requiring an API SN specification, where very high viscosity index oils are preferred to provide much longer oil drain intervals & fuel efficiency in modern engines. It provides maximum protection in engines operating under severe conditions, including high-performance turbo-charged, supercharged gasoline and certain diesel multi-valve fuel injected systems.

PRODUCT PROPERTIES:

- Excellent fuel economy & easy cold starts due to high fluidity at low temperatures.
 High viscosity index provides excellent resistant oil film, even at high engine operating temperatures.
- Excellent cleaning agents, reduces sludge and deposit formation which improves engine cleanliness.
- Outstanding oxidation & thermal stability, reduces oil ageing & helps in extending oil drain intervals.
- Excellent wear protection for greater engine reliability and performance.



SPECIFICATIONS SAE 0W-20

API GRADE	SN
DENSITY @ 15°C	0.840
VISCOSITY @ 40°C	44.65
VISCOSITY @ 100°C	8.6
VISCOSITY INDEX	175
FLASH POINT	220
POUR POINT	-42
TRNI	10.2

TYPICAL CHARACTERISTICS

BMW LONG LIFE- 01, ACEA A3/B3, A3/B4, RENAULT RN 0700/0710, VW 502 00/505 00, MB 229.3/ 229.5,

DEL 5W-20 SN Innovative energy-saving premium fully synthetic engine oil for modern gasoline engines. Designed to meet the requirements of American, Japanese and Korean automakers.

PRODUCT PROPERTIES:

- Exceptional fuel economy due to reduced high-temperature viscosity HTHS and optimal anti-friction properties.
 Highly effective additive package and low-viscosity synthetic base provide confident cold start in the most
- severe conditions, thereby significantly reducing engine starting wear.
- Due to its excellent washing and dispersing properties and the highest thermal oxidative stability, it effectively
 fights against all types of deposits and keeps engine parts clean throughout the entire interval between replacements. Helps to remove previously formed deposits.
- The latest oil components provide excellent anti-wear properties due to the exceptional strength of the oil film, which, combined with excellent pumpability, significantly increases engine life even in "start-stop" driving modes.
- Compatible with the latest exhaust gas aftertreatment systems.
- A special low-viscosity base optimizes the operation of engines with direct injection systems, with turbocharging, as well as with various mechanisms for changing the valve timing (VTEC, i-VTEC, VVT-i, VVTL-i, CVVT, VVL, MIVEC, AVCS (AVLS), CVTCS and others.)
- It is used in engines with extended oil change intervals (Long Life) and conventional.

SPECIFICATIONS SAE 5W-20

API GRADE	SN
DENSITY @ 20°C	0.846
VISCOSITY @ 40°C	47.8
VISCOSITY @ 100°C	8.7
VISCOSITY INDEX	163
FLASH POINT	215
POUR POINT	-39
TBN	7.2

TYPICAL CHARACTERISTICS

GM DEXOS1 GEN2, HONDA HTO-06, GM 6094M, CHRYSLER MS-6395, CHRYSLER MS-13340, JAGUAR STJIR.51.5122, LAND ROVER STJIR.51.5122, FIAT 9.55535-CR1, FORD WSS-M2C930-A, FORD WSS-M2C930-B, FORD WSS-M2C925-A, FORD WSS-M2C925-B, FORD WSS-M2C945-B1, FORD WSS-M2C948-B MAZDA, SUZUKI





TRIBO 5W-30 HYPERMAX Innovative, energy-saving ester-containing fully synthetic premium engine oil for modern gasoline engines. Designed in accordance with the requirements of American, Japanese and Korean automakers specifically for engines with direct injection systems (GDI, D4, NEO-DI, CGI DISI, I-CDTI), turbocharged.

PRODUCT PROPERTIES:

· High fuel efficiency due to reduced viscosity and optimal anti-friction properties.

 Highly effective additive package and synthetic base provide confident cold start in any conditions, thereby significantly reducing engine starting wear.

Due to its excellent washing and dispersing properties and the highest thermal oxidative stability, it effectively
fights against all types of deposits and keeps engine parts clean throughout the entire interval between replacements. - The presence of ester components in combination with optimal viscosity- temperature characteristics
guarantees the highest strength of the oil film, which provides excellent anti-wear properties which, combined
with excellent pumpability, significantly increase engine life even in the most severe operating conditions.

- Compatible with the latest exhaust gas aftertreatment systems.
- A special synthetic base optimizes the operation of engines with direct injection systems, with turbocharging, as
 well as with various mechanisms for changing the valve timing (VTEC, i-VTEC, VVT-i, VVTL-i, CVVT, VVL,
 MIVEC, AVCS (AVLS), CVTCS and others.)
- It is used in engines with extended oil change intervals (Long Life) and conventional.

SPECIFICATIONS SAE 5W-30

API GRADE	SN
DENSITY @ 20°C	0.848
VISCOSITY @ 40°C	66.2
VISCOSITY @ 100°C	11.2
VISCOSITY INDEX	161
FLASH POINT	224
POUR POINT	-42
TBN	7.7

TYPICAL CHARACTERISTICS

GM DEXOS1 GEN2, FORD WSS-M2C929-A, FORD WSS-M2C946-B1, FIAT 9.55535-CR1, HONDA HTO-06, GM 6094M, CHRYSLER MS-13340, LEXUS, MAZDA, SUZUKI. SSANGYONG









DEL 5W-40 Innovative universal multigrade fully synthetic premium motor oil for modern gasoline engines (including those with direct injection) with and without turbocharging, including those equipped with pump nozzles (Pumpe-Duse). Designed based on VW and DAIMLER requirements.

PRODUCT PROPERTIES:

- Due to the contained ester components, it has excellent anti-seize, anti-wear and anti-friction properties, which ensures long and trouble-free operation of the pump-nozzle system.
- · Due to its excellent washing and dispersing properties and the highest thermal oxidative stability, it effectively fights against all types of deposits and keeps engine parts clean throughout the entire interval between replacements. Saves fuel due to optimal anti-friction properties.
- The ester components in combination with a bi-synthetic base guarantee an easy low-temperature engine starting due to exceptional indicators of cranking and pumpability, which significantly reduces engine starting
- It has optimal viscosity in a wide temperature range, which ensures stable operation in all operating modes, including during overloads.
- Due to the high thermo-oxidative stability, it effectively resists aging.
 Compatible with all exhaust gas aftertreatment systems, DPF, TWC, EGR and SCR through the use of Mid SAPS technology.
- It is used in engines with extended oil change intervals (Long Life up to 30,000 km) and conventional.
- Suitable for engines using liquefied natural gas (LNG) and petroleum (LPG) gas.

SPECIFICATIONS SAE 5W-40

API GRADE	SN
DENSITY @ 20°C	0.848
VISCOSITY @ 40°C	93.1
VISCOSITY @ 100°C	15.2
VISCOSITY INDEX	173
FLASH POINT	232
POUR POINT	-42
TBN	7.8

TYPICAL (<u>CHARACT</u>	<u>ERISTICS</u>	
ILSAC GF-5,	BMW LL-04,	PORSCHE C30,	VOLKSWAGEN
TL 52 195			



DEL 10W-30 Hydro-synthetic universal motor oil for all types of gasoline engines. Designed to meet VW and DAIMLER requirements

PRODUCT PROPERTIES:

- The hydro synthetic base ensures efficient operation of the engine in all operating modes: during cold start, in urban mode and in highway mode.
- Due to its good washing and dispersing properties and high thermal oxidative stability, it effectively fights against all types of deposits (carbon deposits, varnishes) and keeps engine parts clean throughout the entire interval between replacements.
- · Contains an effective set of antioxidants due to which it effectively resists aging.
- Saves fuel due to the low viscosity base.
- The hydro-synthetic base combined with a modern additive package preserves engine power parameters throughout the entire interval between replacements.
- Applicable for diesel engines.



SPECIFICATIONS SAE OW-00

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API GRADE	SN
DENSITY @ 20°C	0.852
VISCOSITY @ 40°C	72.1
VISCOSITY @ 100°C	11.1
VISCOSITY INDEX	145
FLASH POINT	225
POUR POINT	-32
TBN	7.2

TYPICAL CHARACTERISTICS

ACEA A3/B4, VOLKSWAGEN 505 00, VOLKSWAGEN 501 01, MB 229.1, ISUZU, KIA

DEL 10W-40 Innovative universal engine oil on a hydro semi synthetic basis for petrol engines, both new and "old" brands and with a large mileage. Developed on the basis of the requirements of European manufacturers.

PRODUCT PROPERTIES:

- The ester technology and the latest generation hydro synthetic base with an extended range of viscosity-temperature properties ensure efficient operation of the engine in all operating modes: cold start, urban mode, highway mode, as well as under increased load (when driving off-road, uphill, driving with a trailer, maximum load) and at high ambient temperatures.
- Perfect for active driving and does not lose its properties when using fuel of variable quality (with a sulphur content of up to 500 ppm) due to a large reserve of the base number (TBN).
- The hydro synthetic ester-containing base, combined with the latest additive package, preserves the engine's power parameters throughout the entire replacement interval.
- The unique wear reduction technology in combination with ester components provides excellent anti-wear and anti-friction properties due to the exceptional strength of the oil film, which, in combination with good pumpability, significantly increases the service life of the engine even in "Start-stop" driving modes and during cold start.
- Due to its excellent detergent-dispersing properties and the highest thermal- oxidative stability, it effectively combats all types of deposits and keeps engine parts clean throughout the entire replacement interval.

SAE 10W-40 FULLY SYNTHETIC API SN



SPECIFICATIONS SAE 10W-40

API GRADE	SN
DENSITY @ 20°C	0.859
VISCOSITY @ 40°C	115.5
VISCOSITY @ 100°C	15.7
VISCOSITY INDEX	144
FLASH POINT	218
POUR POINT	-36
TBN	8.2

TYPICAL CHARACTERISTICS

ACEA A3/B4, VOLKSWAGEN 505.00, VOLKSWAGEN 502.00, VOLKSWAGEN 501.01, VOLKSWAGEN 500.00, PSA B71 2294, RENAULT RN0700, RENAULT RN0710



DIESEL ENGINE LUBRICANTS



DEL 15W-40 Highly refined economy-class synthetic engine oil for highly accelerated diesel engines with and without a turbocharger. Suits high mileage engines operating in various operating conditions. Innovative all-weather mineral-synthetic motor oil for modern heavy duty and high-speed diesel engines with and without turbocharging, operated in difficult conditions.

PRODUCT PROPERTIES:

- Ester components in combination with the highest quality mineral-synthetic base that meets GLOBAL DHD-1 requirements, featuring optimal viscosity in a wide temperature range, provide excellent anti-friction, anti-friction and anti- wear properties, which significantly extend the life of equipment in all, even the most extreme, operating modes in a wide range of ambient temperatures and provides significant fuel savings.
- The ester components in combination with natural antioxidants provide increased thermal oxidative stability to the oil, which, in combination with excellent detergent-dispersant properties and low ash content, effectively reduces the formation of scaling and varnish, prevents deposits of all kinds and maintains engine parts clean throughout the service between replacements.
- · A unique ester-containing formulation provides oil resistance to aging, meanwhile, by reducing evaporation it reduces oil scaling "waste", which enables it to be used in engines with a Long Life up to 45,000 km interval and conventional motors
- Due to the ester-containing base, the optimal viscosity has excellent low- temperature properties, low pour point, along with good oil pumpability and crank ability of engine components at low temperatures, easy "cold start" (up to -30oC) and reduced start-up wear.
- Effectively protects engine parts from all types of corrosion.

SPECIFICATIONS SAE 15W-40

SI Edition SAE 1511 40	
API GRADE	CI-4
DENSITY @ 15°C	0.887
VISCOSITY @ 40°C	118
VISCOSITY @ 100°C	15.6
VISCOSITY INDEX	140
FLASH POINT	240
POUR POINT	-27
TBN	9.8

TYPICAL CHARACTERISTICS

ACEA A3/B4, MB 228.1, MTU TYPE 2, DEUTZ DQC III, MACK EO-N, MACK EO-M PLUS, MAN M 3275-1, RENAULT RLD-2, VOLVO VDS-3, CATERPILLAR ECF-2, CATERPILLAR ECF-1-A, CUMMINS CES 20076, CUMMINS CES 20077, CUMMINS CES 20078, DETROIT DIESEL

SYNTHETIC BLEND API SL/CI

DEL 20W-50 is a robust engine oil, developed according to the latest oil consumption and exhaust emission regulations. It meets all current requirements for European, American and Japanese diesel and gasoline engine oils. It is especially suitable for mixed fleet application, like gasoline, LPG and light loaded diesel engines whether or not turbo charged and with or without catalytic converter. Due to the wide range of application, the stock level for both the fleet owner, as well as the retailer can be reduced.

- Highly viscous mineral-synthetic base with the utmost quality that meets the requirements of GLOBAL DHD-1 provides excellent anti-friction and anti-wear properties, significantly extending the life of the equipment compared to counterpart oils under the most extreme operating modes. Distinguished by the low sulphate ash
- · Compared with counterparts, has higher thermal oxidation stability which, in combination with excellent detergent-dispersant properties effectively reduces the formation of scaling and varnish, prevents deposits of all kinds and maintains engine parts very clean throughout the service between replacements.

 • Unique dispersant additives effectively support soot particles in suspension.
- · Perfectly compatible with all types of gasketing, and has a low tendency to leakage even when worn, thanks to the high viscosity base.
- · Contains components that prevent oxidation and deposition of contaminants on the pistons and O-rings; completely removed from the cylinder walls by oil control rings, which, in combination with low evaporation, significantly reduces oil waste due to scaling even on worn engines and allows it to be used in engines with long life and ordinary oils.



SI Edil Idali Olto SAE Olt GO	
API GRADE	SL/CI-4
DENSITY @ 15°C	0.888
VISCOSITY @ 100°C	19.1
VISCOSITY @ 40°C	171.5
VISCOSITY INDEX	126
FLASH POINT	227
POUR POINT	-24
TBN	8.9

TYPICAL CHARACTERISTICS

ACEA: A3/B4; E3, VOLKSWAGEN 501.01/505.00, MB: 228.1, 229.1, VOLVO: VDS, MAN: 271, MACK: EO/M, ALLISON: C-4, MTU TYPE 1, DDC OIL CATEGORY 1, RENAULT RD, ZF TE-ML 02C/03A/04B/04C/ 07C, CAT



DIESEL ENGINE LUBRICANTS

DEL SAE HD-50 is a high-efficiency monograde mineral engine oil for heavy-load diesel-powered engines with and without a turbocharger operating under very harsh conditions at ambient temperatures more than -15°C.

PRODUCT PROPERTIES:

- Due to the absence of viscosifiers, it is less susceptible to destruction and ageing than analogues all-season oils, it has an extended expected life which, when combined with a low evaporation ability that reduces oil consumption through burning, allows using it in engines with an extended oil replacement age.
- A highest-quality mineral base and thoroughly selected additives ensure good antifriction and antiwear properties that significantly extend the expected life of the equipment in comparison with oil analogues in all, even the most extreme, operation modes.
- In contrast with analogues, it has an enhanced thermo-oxidising stability due to natural antioxidants that, when
 combined with good cleaning-dispersing properties that reduce the formation of carbon deposits and lacquer,
 prevent the formation of deposits of all types and maintain engine parts clean throughout the entire time between
 replacements.
- It has fair low-temperature properties.
- It effectively protects engine parts against all types of corrosion.
- It may be used when operating on fuel with an increased sulphur content.
- It is meant for high-load diesel-powered engines of trucks, construction, mining and agricultural equipment, boats, locomotives, as well as stationary equipment. It is suitable for retro-vehicles.

SPECIFICATIONS SAE HD-50

API GRADE	CH-4
DENSITY @ 15 °C	0.902
VISCOSITY @ 100 °C	20.6
VISCOSITY @ 40 °C	155
VISCOSITY INDEX	95
FLASH POINT	240
POUR POINT	-18
TBN	10.8

TYPICAL CHARACTERISTICS

ACEA A3/B4, JASO DH-1, GLOBAL DHD-1, CATERPILLAR ECF-2 / ECF-1-A, CUMMINS CES 20076, CUMMINS CES 20077, CUMMINS CES 20078, DETROIT DIESEL 93K215, DEUTZ DQC-III, MACK EO-N, MACK EO-M PLUS, MB 228.1, MB 228.3, MTU TYPE 2, RENAULT RLD-2, VOLVO VDS-3, MAN M 3275-1





DEL SAE HD-70 is a high-efficiency monograde mineral engine oil for heavy-load diesel-powered engines with and without a turbocharger operating under very harsh conditions at ambient temperatures more than -15°C.

PRODUCT PROPERTIES:

- Due to the absence of viscosifiers, it is less susceptible to destruction and ageing than analogues all-season oils, it has an extended expected life which, when combined with a low evaporation ability that reduces oil consumption through burning, allows using it in engines with an extended oil replacement age.
- A highest-quality mineral base and thoroughly selected additives ensure good antifriction and antiwear properties that significantly extend the expected life of the equipment in comparison with oil analogues in all, even the most extreme, operation modes.
- In contrast with analogues, it has an enhanced thermo-oxidising stability due to natural antioxidants that, when
 combined with good cleaning-dispersing properties that reduce the formation of carbon deposits and lacquer,
 prevent the formation of deposits of all types and maintain engine parts clean throughout the entire time between
 replacements.
- It has fair low-temperature properties.
- It effectively protects engine parts against all types of corrosion.
- It may be used when operating on fuel with an increased sulphur content.
- It is meant for high-load diesel-powered engines of trucks, construction, mining and agricultural equipment, boats, locomotives, as well as stationary equipment. It is suitable for retro-vehicles.

SPECIFICATIONS SAE HD-50

API GRADE	CH-4
DENSITY @ 15 °C	0.902
VISCOSITY @ 40 °C	285
VISCOSITY @ 100 °C	24.6
VISCOSITY INDEX	108
FLASH POINT	240
POUR POINT	-15
TBN	10.8

TYPICAL CHARACTERISTICS

ACEA A3/B4, JASO DH-1, GLOBAL DHD-1, CATERPILLAR ECF-2 / ECF-1-A, CUMMINS CES 20076, CUMMINS CES 20077, CUMMINS CES 20077, CUMMINS CES 20077, CUMMINS CES 20078, DETROIT DIESEL 93K215, DEUTZ DQC-III, MACK EO-N, MACK EO-M PLUS, MB 228.1, MB 228.3, MTU TYPE 2, RENAULT RLD-2, VOLVO VDS-3, MAN M 3275-1





DIESEL ENGINE LUBRICANTS

SAE HD-50
PREMIUM MINERAL API CH-4

DEL SAE HD-50 is a high-efficiency monograde mineral engine oil for heavy-load diesel-powered engines with and without a turbocharger operating under very harsh conditions at ambient temperatures more than -15°C.

PRODUCT PROPERTIES:

- Due to the absence of viscosifiers, it is less susceptible to destruction and ageing than analogues all-season oils, it has an extended expected life which, when combined with a low evaporation ability that reduces oil consumption through burning, allows using it in engines with an extended oil replacement age.
- A highest-quality mineral base and thoroughly selected additives ensure good antifriction and antiwear properties that significantly extend the expected life of the equipment in comparison with oil analogues in all, even the most extreme, operation modes.
- In contrast with analogues, it has an enhanced thermo-oxidising stability due to natural antioxidants that, when
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 prevent the formation of deposits of all types and maintain engine parts clean throughout the entire time between
 replacements.
- It has fair low-temperature properties.
- It effectively protects engine parts against all types of corrosion.
- It may be used when operating on fuel with an increased sulphur content.

It is meant for high-load diesel-powered engines of trucks, construction, mining and agricultural equipment, boats, locomotives, as well as stationary equipment. It is suitable for retro-vehicles.



SPECIFICATIONS SAE HD-50

API GRADE	CH-4
DENSITY @ 15 °C	0.902
VISCOSITY @ 100 °C	20.6
VISCOSITY @ 40 °C	155
VISCOSITY INDEX	95
FLASH POINT	240
POUR POINT	-18
TBN	10.8

TYPICAL CHARACTERISTICS

ACEA A3/B4, JASO DH-1, GLOBAL DHD-1, CATERPILLAR ECF-2 / ECF-1-A, CUMMINS CES 20076, CUMMINS CES 20077, CUMMINS CES 20077, CUMMINS CES 20077, CUMMINS CES 20078, DETROIT DIESEL 93K215, DEUTZ DQC-III, MACK EO-N, MACK EO-M PLUS, MB 228.1, MB 228.3, MTU TYPE 2, RENAULT RLD-2, VOLVO VDS-3, MAN M 3275-1



DEL SAE HD-70 is a high-efficiency monograde mineral engine oil for heavy-load diesel-powered engines with and without a turbocharger operating under very harsh conditions at ambient temperatures more than -15°C.

PRODUCT PROPERTIES:

- Due to the absence of viscosifiers, it is less susceptible to destruction and ageing than analogues all-season oils, it has an extended expected life which, when combined with a low evaporation ability that reduces oil consumption through burning, allows using it in engines with an extended oil replacement age.
- A highest-quality mineral base and thoroughly selected additives ensure good antifriction and antiwear properties that significantly extend the expected life of the equipment in comparison with oil analogues in all, even the most extreme, operation modes.
- In contrast with analogues, it has an enhanced thermo-oxidising stability due to natural antioxidants that, when
 combined with good cleaning-dispersing properties that reduce the formation of carbon deposits and lacquer,
 prevent the formation of deposits of all types and maintain engine parts clean throughout the entire time between
 replacements.
- It has fair low-temperature properties.
- It effectively protects engine parts against all types of corrosion.
- It may be used when operating on fuel with an increased sulphur content.

It is meant for high-load diesel-powered engines of trucks, construction, mining and agricultural equipment, boats, locomotives, as well as stationary equipment. It is suitable for retro-vehicles.



SPECIFICATIONS SAE HD-50

API GRADE	CH-4
DENSITY @ 15 °C	0.902
VISCOSITY @ 40 °C	285
VISCOSITY @ 100 °C	24.6
VISCOSITY INDEX	108
FLASH POINT	240
POUR POINT	-15
TBN	10.8

TYPICAL CHARACTERISTICS

ACEA A3/B4, JASO DH-1, GLOBAL DHD-1, CATERPILLAR ECF-2 / ECF-1-A, CUMMINS CES 20076, CUMMINS CES 20077, CUMMINS CES 20077, CUMMINS CES 20077, CUMMINS CES 20078, DETROIT DIESEL 93K215, DEUTZ DQC-III, MACK EO-N, MACK EO-M PLUS, MB 228.1, MB 228.3, MTU TYPE 2, RENAULT RLD-2, VOLVO VDS-3, MAN M 3275-1

GEAR & TRANSMISSION LUBRICANTS

DEL CVT is a fully synthetic transmission oil for the lubrication of modern Continuously Variable Transmissions (CVT's). TRIBO CVT can be applied in all metal-belt, which are mentioned under Performance Level. TRIBO CVT offers optimal protection of the CVT under every condition and prevents wear at the metal metal contact points on the belts and pulleys. TRIBO CVT protects the metal parts against wear and corrosion as well as inconvenient vibrations. Because of the special additives this oil has a durable quality, even under ongoing pressure. TRIBO CVT is formulated to prevent air entry and foam building in order to guarantee optimum lubrications.

PRODUCT PROPERTIES:

Anti-wear protection: significantly extended transmission life.
Frictional properties: very smooth gear shifting, no vibration.
Extended oil life: excellent thermal and oxidation stability.
OEMs usually recommend specific CVT fluids for their transmissions. By carefully balancing base oils and advanced additives, it has become possible to formulate this fluid that meets the requirements of both European and Japanese CVT manufacturers. This product may not be used in some hybrid vehicles, requiring special fluids



SPECIFICATIONS ATF CVT

RED
0.848
32.9
7.1
187
-54
188

TYPICAL CHARACTERISTICS

BMW 83 22 0 136 376, BMW 83 22 0 429 BMW 83 Z2 U 136 3/6, BMW 83 Z2 U 429 134, CHRYSLER CVTF+4, CVT EZL 799 A, DAIHATSU AMIX CVT FLUID, DC, DAIHATSU CVTF DFE, DAIHATSU/SUZUKI TC, DEX-CVT, DIA QUEEN CVTF J1, DIA QUEEN CVTF J4, ELF MATIC CVT, EZL-799, FORD CVT23, HONDA HCF-2, HONDA HMMF, MB 236.20, MOPAR CVTF +4, NISSAN NS-3, NISSAN NS-2, NISSAN NS-1, SUBSARU LINEART-RONIC CYTF, SUZUKI CYT GREEN 1, SUZUKI CYTF GREEN 2, SUZUKI NS-2, TOYOTA CYT FE



DEL ATF DEX-III is a synthetic automatic transmission fluid, especially developed for new (after 1997) and older (automatic) transmissions build by Ford and GM, as well as for many other brands. It is also suitable for power steering systems, some hydraulic systems and for rotary air compressors where an excellent low temperature fluidity is required. ATF III has a very high viscosity index and offers resistance against corrosion and foam building. It also has good anti oxidation and anti wear properties. ATF III has an extremely low pour point which allows easy gear shifting at cold starts. Seal are not affected by this ATF.

PRODUCT PROPERTIES:

- The high-quality low-viscosity base in combination with a multifunctional additive package preserves all its
 properties in a wide range of temperatures: it ensures good lubricating properties at low (-45°C) temperatures in winter and ensures a stable oil film under extreme loads and at high temperatures in summer.
- The high-technology combination of additives ensures good antifriction properties for gear couplings and required friction properties for friction elements thus ensuring a significant fuel economy, a continuous and smooth transmission shift and an extended service life of all transmission elements. It prevents scuffing
- It has an increased thermal-oxidative stability and resistance to the high- temperature thermal degradation allowing decreasing the sludge formation, increasing the time between oil changes and reducing equipment
- It protects metal parts from ferrous and non-ferrous alloys from corrosion when both in and not in operation.
- It effectively resists aeration and foam formation.



COLOUR	RED
DENSITY @ 20°C	0.859
VISCOSITY @ 40°C	37.3
VISCOSITY @ 100°C	7.4
VISCOSITY INDEX	169
FLASH POINT	186
POUR POINT	-48

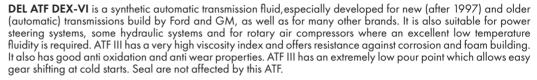
TYPICAL CHARACTERISTICS

ALLISON C-4, FORD MERCON, GM DEXRON IIIG, MAN TYP Z1/V1, MB 236.1, VOITH 55.6335, ZF TE-ML, 02F/03D/09/11B/17C, ZF TE-ML 04D/14A, CATERPIL-LAR TO-2, MAN 339 TYPE V2, MAN 339 Z-2, VOLVO





ATF DEX-VI



PRODUCT PROPERTIES:

- The high-quality low-viscosity base in combination with a multifunctional additive package preserves all its properties in a wide range of temperatures: it ensures good lubricating properties at low (-45°C) temperatures in winter and ensures a stable oil film under extreme loads and at high temperatures in summer.
- The high-technology combination of additives ensures good antifriction properties for gear couplings and required friction properties for friction elements thus ensuring a significant fuel economy, a continuous and smooth transmission shift and an extended service life of all transmission elements. It prevents scuffing.
- It has an increased thermal-oxidative stability and resistance to the high- temperature thermal degradation allowing decreasing the sludge formation, increasing the time between oil changes and reducing equipment maintenance costs.
- It protects metal parts from ferrous and non-ferrous alloys from corrosion when both in and not in operation.
- It effectively resists aeration and foam formation.



SPECIFICATIONS ATF DEX-VI

ST TON TO ALL DESCRIPTION	
COLOUR	RED
DENSITY @ 20°C	0.859
VISCOSITY @ 40°C	37.3
VISCOSITY @ 100°C	7.4
VISCOSITY INDEX	169
FLASH POINT	186
POLIR POINT	-48

TYPICAL CHARACTERISTICS

ALLISON C-4, FORD MERCON, GM DEXRON IIIG, MAN TYP Z1/V1, MB 236.1, VOITH 55.6335, ZF TE-ML, 02F/03D/09/11B/17C, ZF TE-ML 04D/14A, CATERPIL-LAR TO-2, MAN 339 TYPE V2, MAN 339 Z-2, VOLVO 97341



INDUSTRIAL LUBRICANTS

DEL HYD ISO 32 is manufactured from a high quality of virgin base oils combined with anti-wear additives and rust inhibitors, to provide high stable premium hydraulic fluids with quality reserve for excellent performance under severe operating condition in mobile industrial service.

PRODUCT PROPERTIES:

- Cleaner servo valves, less chances for sticking.
- Superior thermal stability, avoid the formation of sludge even at high temperature.
- Superior filterability increases filter life.
- Multi- metal compatibility under wet and dry conditions.
- Good demusibility ensuring rapid water separation in the case of water getting into the circuit.
- Excellent protection against rust and corrosion insuring maximum equipment life.
- Rapid air release property minimizes chances of pump cavitation leading troubles for operations.

It is recommended for all mobile and stationary hydraulic system operating under severe conditions, it's also can be used in circulation, splash and ring oil Lubricants system, compressors where recommended.



SPECIFICATIONS ISO 32

APPEARANCE	B & C
DENSITY @ 15°C	0.872
VISCOSITY @ 40°C	32.5
VISCOSITY @ 100°C	6.5
VISCOSITY INDEX	160
FLASH POINT	210
POUR POINT	-39
TAN	0.3

TYPICAL CHARACTERISTICS

ISO VISCOSITY GRADE 32, DIN 51524-2 (HLP), ISO 11158 (HM), PARKER DENISON FILTERABILITY TP 02100, I-SO VISCOSITY GRADE 32, DIN 51524-2, ISO 11158 (HM), AFNOR FRANCE NF E 48-603, AFNOR FRANCE NF E 48-603, CONESTOGA ISO 20763, CONESTOGA ISO 20763, SPERRY VICKERS I-286-S, SPERRY VICKERS I-286-S, EATON I-286-S, EATON I-286-S, US STEEL 126, US STEEL 126, US STEEL 127, WAG CINCINNATI P-68, MAG CINCINNATI P-69, MAG CINCINNATI P-70



DEL ISO 46 is manufactured from a high quality of virgin base oils combined with anti-wear additives and rust inhibitors, to provide high stable premium hydraulic fluids with quality reserve for excellent performance under severe operating condition in mobile industrial service.

PRODUCT PROPERTIES:

- Cleaner servo valves, less chances for sticking.
- Superior thermal stability, avoid the formation of sludge even at high temperature.
- Superior filterability increases filter life.
- Multi- metal compatibility under wet and dry conditions.
- · Good demusibility ensuring rapid water separation in the case of water getting into the circuit.
- Excellent protection against rust and corrosion insuring maximum equipment life.
- Rapid air release property minimizes chances of pump cavitation leading troubles for operations.

It is recommended for all mobile and stationary hydraulic system operating under severe conditions, it's also can be used in circulation, splash and ring oil Lubricants system, compressors where recommended.



SPECIFICATIONS ISO 46

APPEARANCE	B & C
DENSITY @ 15°C	0.876
VISCOSITY @ 40°C	47
VISCOSITY @ 100°C	8.4
VISCOSITY INDEX	160
FLASH POINT	218
POUR POINT	-36
TAN	0.35

TYPICAL CHARACTERISTICS

ISO VISCOSITY GRADE 46, DIN 51524-2 (HLP), ISO 11158 (HM), AFNOR FRANCE NF E 48-603, CONESTOGA ISO 20763, EATON 1-286-S, MAG CINCINNATI P-68, MAG CINCINNATI P-69, MAG CINCINNATI P-70, PARKER DENISON HF-1, PARKER DENISON HF-2, PARKER DENISON HF-2, PARKER DENISON FILTERABILITY TP 02100, SPERRY VICKERS 1-286-S, US STEEL 126 US STEEL 127



INDUSTRIAL LUBRICANTS

HYD 68

DEL ISO 68 is manufactured from a high quality of virgin base oils combined with anti-wear additives and rust inhibitors, to provide high stable premium hydraulic fluids with quality reserve for excellent performance under severe operating condition in mobile industrial service.

PRODUCT PROPERTIES:

- Cleaner servo valves, less chances for sticking.
- Superior thermal stability, avoid the formation of sludge even at high temperature.
- Superior filterability increases filter life.
- Multi- metal compatibility under wet and dry conditions.
- · Good demusibility ensuring rapid water separation in the case of water getting into the circuit.
- Excellent protection against rust and corrosion insuring maximum equipment life.
- Rapid air release property minimizes chances of pump cavitation leading troubles for operations.

It is recommended for all mobile and stationary hydraulic system operating under severe conditions, it's also can be used in circulation, splash and ring oil Lubricants system, compressors where recommended.



SPECIFICATIONS ISO 68

SPECIFICATIONS 130 00	
APPEARANCE	В & С
DENSITY @ 15°C	0.88
VISCOSITY @ 40°C	69.2
VISCOSITY @ 100°C	8.60
VISCOSITY INDEX	95
FLASH POINT	235
POUR POINT	-5
TAN	0.75

TYPICAL CHARACTERISTICS

ISO VISCOSITY GRADE 68, DIN 51524-2 (HLP), ISO 11158 (HM), AFNOR FRANCE NF E 48-603 CONESTOGA, ISO 20763 EATON 1-286-5, MAG CINCINNATI P-68, MAG CINCINNATI P-69, MAG CINCINNATI P-70, PARKER DENISON HF-1, PARKER DENISON HF-2, PARKER DENISON HF-1, PARKER DENISON HF-2, PARKER DENISON FILTERABILITY TP 02100, SPERRY VICKERS 1-286-S, US STEEL 126 US STEEL 127

HYD 100

DEL ISO 100 is manufactured from a high quality of virgin base oils combined with anti-wear additives and rust inhibitors, to provide high stable premium hydraulic fluids with quality reserve for excellent performance under severe operating condition in mobile industrial service.

PRODUCT PROPERTIES:

- Cleaner servo valves, less chances for sticking.
- Superior thermal stability, avoid the formation of sludge even at high temperature.
- Superior filterability increases filter life.
- Multi- metal compatibility under wet and dry conditions.
- Good demusibility ensuring rapid water separation in the case of water getting into the circuit.
- Excellent protection against rust and corrosion insuring maximum equipment life.
- Rapid air release property minimizes chances of pump cavitation leading troubles for operations.

It is recommended for all mobile and stationary hydraulic system operating under severe conditions, it's also can be used in circulation, splash and ring oil Lubricants system, compressors where recommended.



SPECIFICATIONS ISO 100

B & C
0.89
102
11.0
95
240
-12
0.35

TYPICAL CHARACTERISTICS

ISO VISCOSITY GRADE 100, DIN 51524-2 (HLP), ISO 11158 (HM), AFNOR FRANCE NF E 48-603, CONESTOGA ISO 20763, MAG CINCINNATI P-68, MAG CINCINNATI P-70, PARKER DENISON HF-0, PARKER DENISON HF-1, PARKER DENISON HF-2, PARKER DENISON FILTERABILITY TP 02100, SPERRY VICKERS I-286-S, EATON I-286-S, US STEEL 126 / 127

INDUSTRIAL LUBRICANTS

DEL ISO 150 it is manufactured from a high quality of virgin base oils combined with anti-wear additives and rust inhibitors, to provide high stable premium hydraulic fluids with quality reserve for excellent performance under severe operating condition in mobile industrial service.

PRODUCT PROPERTIES:

- Cleaner servo valves, less chances for sticking.
- Superior thermal stability, avoid the formation of sludge even at high temperature.
- Superior filterability increases filter life.
- Multi- metal compatibility under wet and dry conditions.
 Good demusibility ensuring rapid water separation in the case of water getting into the circuit.
- Excellent protection against rust and corrosion insuring maximum equipment life.
- Rapid air release property minimizes chances of pump cavitation leading troubles for operations.

It is recommended for all mobile and stationary hydraulic system operating under severe conditions, it's also can be used in circulation, splash and ring oil Lubricants system, compressors where recommended.

SPECIFICATIONS ISO 150

APPEARANCE	B & C
DENSITY @ 15°C	0.890
VISCOSITY @ 40°C	156
VISCOSITY @ 100°C	14.9
VISCOSITY INDEX	95
POUR POINT	-24
FLASH POINT	240
TAN	

TYPICAL CHARACTERISTICS

ISO VISCOSITY GRADE 150, DIN 51524-2 (HLP), ISO 11158 (HM), AFNOR FRANCE NF E 48-603, CONESTOGA ISO 20763 EATON I-286-5, MAG CINCINNATI P-68, MAG CINCINNATI P-69, MAG CINCINNATI P-70, PARKER DENISON HF-1, PARKER DENISON HF-2, PARKER DENISON HF-1, PARKER DENISON HF-2, PARKER DENISON FILTERABILITY TP 02100, SPERRY VICKERS I-286-S, US STEEL 126 US STEEL 127



DEL ISO 220 it is manufactured from a high quality of virgin base oils combined with anti-wear additives and rust inhibitors, to provide high stable premium hydraulic fluids with quality reserve for excellent performance under severe operating condition in mobile industrial service.

PRODUCT PROPERTIES:

- Cleaner servo valves, less chances for sticking.
- Superior thermal stability, avoid the formation of sludge even at high temperature.
- Superior filterability increases filter life.
- Multi- metal compatibility under wet and dry conditions.
- Good demusibility ensuring rapid water separation in the case of water getting into the circuit.
- Excellent protection against rust and corrosion insuring maximum equipment life.
- Rapid air release property minimizes chances of pump cavitation leading troubles for operations.

It is recommended for all mobile and stationary hydraulic system operating under severe conditions, it's also can be used in circulation, splash and ring oil Lubricants system, compressors where recommended.

SPECIFICATIONS ISO 220

APPEARANCE	B & C
DENSITY @ 15°C	0.894
VISCOSITY @ 40°C	217
VISCOSITY @ 100°C	18.6
VISCOSITY INDEX	95
POUR POINT	-15
FLASH POINT	245
TAN	

TYPICAL CHARACTERISTICS

ISO-L-DAA/DAB/DAG/DAH, DIN 51506: VBL/VCL/VDL





INDUSTRIAL LUBRICANTS

COMPRESSOR ISO 32



DEL COMPRESSOR OIL ISO 32 is a high-quality, detergent compressor oil specifi cally developed for the lubrication of centrifugal and rotary gas compressors handling sour gas or process gas. It has a high alkaline reserve to neutralize the acids formed during compression of sour gas or process gas, and holds moisture in suspension until oil drain. Compressor oil is specially formulated to provide excellent service and protection in gas compression service. It has excellent oxidation resistance and thermal stability at high temperatures to help minimize deposit formation and provide long service life. It is formulated to neutralize acids formed during sour gas or process gas compression. It protects against rust and corrosion, and is resistant to excessive foam buildup that can interfere with proper lubrication. The detergent additive helps hold moisture in suspension until oil drain.

PRODUCT PROPERTIES:

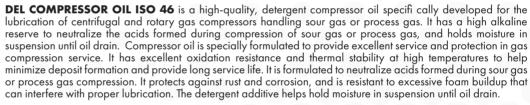
- Excellent oxidation resistance and thermal stability at high temperatures.
- High alkaline reserve to neutralize acids formed during gas compression.
- Holds moisture in suspension.
- Protects against rust and corrosion.
- Good foam resistance.
- · Low carbon-forming tendency.

SPECIFICATIONS ISO 32

APPEARANCE	B & C
DENSITY @ 15°C	0.873
VISCOSITY @ 40°C	32.5
VISCOSITY @ 100°C	5.4
VISCOSITY INDEX	99
FLASH POINT	216
POUR POINT	-30
TAN	0.08

<u>TY</u>	<u>'PICAL CHARACTERISTICS</u>
ISC	D-L-DAA/DAB/DAG/DAH, DIN 51506: VBL/VCL/VDL

COMPRESSORISO 46



PRODUCT PROPERTIES:

- Excellent oxidation resistance and thermal stability at high temperatures.
- High alkaline reserve to neutralize acids formed during gas compression.
- Holds moisture in suspension.
- Protects against rust and corrosion.
- Good foam resistance.
- Low carbon-forming tendency.



SPECIFICATIONS ISO 46

APPEARANCE	В & С
DENSITY @ 15°C	0.881
VISCOSITY @ 40°C	45.7
VISCOSITY @ 100°C	6.8
VISCOSITY INDEX	103
FLASH POINT	236
POUR POINT	-24
TAN	0.08

TYPICAL CHARACTERISTICS ISO-L-DAA/DAB/DAG/DAH, DIN 51506: VBL/VCL/VDL

INDUSTRIAL LUBRICANTS

DEL COMPRESSOR OIL ISO 68 is a high-quality, detergent compressor oil specifi cally developed for the lubrication of centrifugal and rotary gas compressors handling sour gas or process gas. It has a high alkaline reserve to neutralize the acids formed during compression of sour gas or process gas, and holds moisture in suspension until oil drain. Compressor Oil is specially formulated to provide excellent service and protection in gas compression service. It has excellent oxidation resistance and thermal stability at high temperatures to help minimize deposit formation and provide long service life. It is formulated to neutralize acids formed during sour gas or process gas compression. It protects against rust and corrosion, and is resistant to excessive foam buildup that can interfere with proper lubrication. The detergent additive helps hold moisture in suspension until oil drain.

PRODUCT PROPERTIES:

- Excellent oxidation resistance and thermal stability at high temperatures.
- High alkaline reserve to neutralize acids formed during gas compression.
- Holds moisture in suspension.
- Protects against rust and corrosion.
- · Good foam resistance.
- · Low carbon-forming tendency.

SPECIFICATIONS ISO 68

_	APPEARANCE	B & C
	DENSITY @ 15°C	0.880
	VISCOSITY @ 40°C	66.6
	VISCOSITY @ 100°C	8.7
	VISCOSITY INDEX	101
	FLASH POINT	253
	POUR POINT	-21
	TAN	0.08

TYPICAL CHARACTERISTICS

ISO-L-DAA/DAB/DAG/DAH, DIN 51506: VBL/VCL/VDL



COMPRESSOR ISO 100

DEL COMPRESSOR OIL ISO 100 is a high-quality, detergent compressor oil specifi cally developed for the lubrication of centrifugal and rotary gas compressors handling sour gas or process gas. It has a high alkaline reserve to neutralize the acids formed during compression of sour gas or process gas, and holds moisture in suspension until oil drain. Compressor oil is specially formulated to provide excellent service and protection in gas compression service. It has excellent oxidation resistance and thermal stability at high temperatures to help minimize deposit formation and provide long service life. It is formulated to neutralize acids formed during sour gas or process gas compression. It protects against rust and corrosion, and is resistant to excessive foam buildup that can interfere with proper lubrication. The detergent additive helps hold moisture in suspension until oil drain.

PRODUCT PROPERTIES:

- Excellent oxidation resistance and thermal stability at high temperatures.
- High alkaline reserve to neutralize acids formed during gas compression.
- Holds moisture in suspension.
- Protects against rust and corrosion.
- Good foam resistance.
- Low carbon-forming tendency.

SPECIFICATIONS ISO 100

APPEARANCE	В & С
DENSITY @ 15°C	0.891
VISCOSITY @ 40°C	96
VISCOSITY @ 100°C	10.9
VISCOSITY INDEX	97
FLASH POINT	277
POUR POINT	-18
TAN	0.08

TYPICAL CHARACTERISTICS

DIN 51524/2 (HLP), ISO 6743/4: HM, ISO 11158: HM, US STEEL 126/127/136, SS 155434, SEB 181 222, ISO-L-DAA/DAB/DAG/DAH DENISON HF-0/HF-1/HF-2, DIN 51506: VBL/VCL/VDL, BOSCH REXROTH RE 90220, AFNOR NF E 48-603 (HM), VICKERS 35VQ25A



MARTIME LUBRICANTS

COMPRESSOR ISO 150



DEL COMPRESSOR OIL ISO 150 is a high-quality, detergent compressor oil specifically developed for the lubrication of centrifugal and rotary gas compressors handling sour gas or process gas. It has a high alkaline reserve to neutralize the acids formed during compression of sour gas or process gas, and holds moisture in suspension until oil drain. Compressor oil is specially formulated to provide excellent service and protection in gas compression service. It has excellent oxidation resistance and thermal stability at high temperatures to help minimize deposit formation and provide long service life. It is formulated to neutralize acids formed during sour gas or process gas compression. It protects against rust and corrosion, and is resistant to excessive foam buildup that can interfere with proper lubrication. The detergent additive helps hold moisture in suspension until oil drain.

PRODUCT PROPERTIES:

- Excellent oxidation resistance and thermal stability at high temperatures.
- High alkaline reserve to neutralize acids formed during gas compression.
- Holds moisture in suspension.
- · Protects against rust and corrosion.
- · Good foam resistance.
- Low carbon-forming tendency.

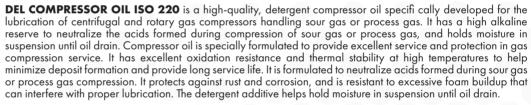
SPECIFICATIONS ISO 32

<u>5: 14::14::15:15 05 02</u>	
APPEARANCE	В & С
DENSITY @ 15°C	0.891
VISCOSITY @ 40°C	145
VISCOSITY @ 100°C	14.5
VISCOSITY INDEX	98
FLASH POINT	294
POUR POINT	-15
TAN	0.08

TYPICAL CHARACTERISTICS

ISO VISCOSITY GRADE 150, DIN 51506 (VBL), DIN 51506 (VCL), DIN 51506 (VDL), ISO DP 6521 L-DAA, ISO DP 6521 L-DAB, ISO DP 6521 L-DAG, ISO DP 6521 L-DAH

COMPRESSOR



PRODUCT PROPERTIES:

- Excellent oxidation resistance and thermal stability at high temperatures.
- High alkaline reserve to neutralize acids formed during gas compression.
- Holds moisture in suspension.
- Protects against rust and corrosion.
- Good foam resistance.
- Low carbon-forming tendency.



SPECIFICATIONS ISO 46

APPEARANCE	В & С
DENSITY @ 15°C	0.846
VISCOSITY @ 40°C	220.2
VISCOSITY @ 100°C	25.6
VISCOSITY INDEX	148
FLASH POINT	280
POUR POINT	-45
TAN	0.24

TYPICAL CHARACTERISTICS

ISO VISCOSITY GRADE 220, DIN 51506 (VBL), DIN 51506 (VCL), DIN 51506 (VDL), ISO DP 6521 L-DAA, ISO DP 6521 L-DAB, ISO DP 6521 L-DAG, ISO DP 6521 L-DAH

MARITIME LUBRICANTS

DEL SAE 30 TBN 15 is a trunk piston engine oils, it is formulated from high latest additives technology and high quality of base oils to meet the latest design of medium speed diesel engines burning residuals fuels in marine application and stationary engines. It is specially designed to provide a higher stress level during continuous operation. It provide engine outstanding cleanness in all weather conditions and longer engine life.

PRODUCT PROPERTIES:

- Excellent water resistance
- Very good thermal and high temperature resistance.
- Reduce build up deposits in the engine to provide reduction in the engine maintenance cost.
- Double wear protection due to the oil film strength at high pressure during operation.

 Very good viscosity control, oxidation resistance will less top-ups and no contamination with residual fuel.
- They have excellent water separation properties and prevent the formation of an emulsion with water. When contaminated with sea water from the air and the ingress of fuel retains high performance properties.
- · Special inhibitors prevent corrosion caused by sea water and salt fog, as well as aggressive environmental influences in the hold.

It is recommended for use in new modern marine and stationary medium & low speed Diesel Engines using low residual fuels. It meets most of the engine manufacturer, WÄRTSILÄ, Caterpillar, Yanmar, Daihatsu and MAN Diesel

SPECIFICATIONS ISO 68

API GRADE	CF-4
DENSITY @ 15°C	0.915
VISCOSITY @ 40°C	103.7
VISCOSITY @ 100°C	11.9
VISCOSITY INDEX	96
FLASH POINT	232
POUR POINT	-18
TBN	15







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SPECIFICATIONS ISO 100

API GRADE	CF-4
DENSITY @ 15°C	0.915
VISCOSITY @ 40°C	103.7
VISCOSITY @ 100°C	11.9
VISCOSITY INDEX	96
FLASH POINT	232
POUR POINT	-18
TBN	30









DEL SAE 40 TBN 15 is a trunk piston engine oils, it is formulated from high latest additives technology and high quality of base oils to meet the latest design of medium speed diesel engines burning residuals fuels in marine application and stationary engines. It is specially designed to provide a higher stress level during continuous operation. It provide engine outstanding cleanness in all weather conditions and longer engine life.

PRODUCT PROPERTIES:

- Excellent water resistance
- Very good thermal and high temperature resistance.
- Very good friential and high temperature resistance.
 Reduce build up deposits in the engine to provide reduction in the engine maintenance cost.
 Double wear protection due to the oil film strength at high pressure during operation.
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- contaminated with sea water from the air and the ingress of fuel retains high performance properties. · Special inhibitors prevent corrosion caused by sea water and salt fog, as well as aggressive environmental

influences in the hold. It is recommended for use in new modern marine and stationary medium & low speed Diesel Engines using low residual fuels. It meets most of the engine manufacturer, WÄRTSILÄ, Caterpillar, Yanmar, Daihatsu and MAN

SPECIFICATIONS ISO 150

Diesel

API GRADE	CF-4
DENSITY @ 15°C	0.915
VISCOSITY INDEX	96
VISCOSITY @ 40°C	103.7
VISCOSITY @ 100°C	11.9
FLASH POINT	232
POUR POINT	-18
TBN	15

TYPICAL CHA	<u>RACTERIST</u>	<u>ICS</u>	
API CF-4, TBN 15			

DEL SAE 40 TBN 30 is a trunk piston engine oils, it is formulated from high latest additives technology and high quality of base oils to meet the latest design of medium speed diesel engines burning residuals fuels in marine application and stationary engines. It is specially designed to provide a higher stress level during continuous operation. It provide engine outstanding cleanness in all weather conditions and longer engine life.

PRODUCT PROPERTIES:

- Excellent water resistance
- Very good thermal and high temperature resistance.
- Reduce build up deposits in the engine to provide reduction in the engine maintenance cost.
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- Very good viscosity control, oxidation resistance will less top-ups and no contamination with residual fuel. • They have excellent water separation properties and prevent the formation of an emulsion with water. When contaminated with sea water from the air and the ingress of fuel retains high performance properties.
- · Special inhibitors prevent corrosion caused by sea water and salt fog, as well as aggressive environmental influences in the hold.

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SPECIFICATIONS ISO 220

API GRADE	CF-4
DENSITY @ 15°C	0.915
VISCOSITY @ 40°C	103.7
VISCOSITY @ 100°C	11.9
VISCOSITY INDEX	96
FLASH POINT	232
POUR POINT	-18
TBN	30

RACTERIS	STICS		
		RACTERISTICS	

ANTIFREEZE LUBRICANTS

DEL COOLANT 50 is a long life, high quality coolant that can be used for up to three years of continual use. Formulated from mono ethylene glycol and inorganic silicate corrosion inhibitors with proven coolant and heat transfer technology, it provides excellent corrosion protection to all metals used in the construction of gasoline and diesel engines especially the principle metals iron, copper and aluminum. It is available diluted with de-ionized water at 50% concentrations of coolant.

PRODUCT PROPERTIES:

- It ensures a reliable protection of metals and alloys (brass, copper, alloy- treated steel, cast iron, aluminium) from all forms of corrosion, as well as prevents a high-temperature corrosion of aluminium surfaces of modern engines.
- The non-organic additive package protects the surface at once and the organic part starts to act only when corrosion sources appear thus a maximum protection is reached from the start of use and the service life of the engine is extended.
- It has an exceptional thermal stability. It protects from deposit formation.
- It has excellent heat conductivity properties and a resistance to foam formation.
- It is neutral to inserts and hoses, compatible with all types of rubber and plastic parts of the cooling system.
- It has an excellent resistance to hard water and very low corrosion inhibitor depletion rates.
- The high-efficiency additive package ensures an exceptional stability of operating properties of the antifreeze throughout the entire service life.
- It contains a fluorescent dye allowing identifying even small leakages of the antifreeze in the UV light.

SPECIFICATIONS COOLANT 50 (RED)

PH	8 – 8.7
SPECIFIC GRAVITY @ 20°C	1.07
FREEZING POINT	-37 °C
FOAMING PROPERTIES - VOLUME (M	L) 50 MAX
FOAMING PROPERTIES - BREAK TIME	(SEC) 5 MAX
FLASH POINT (OPEN CUP)	118 °C
ASH CONTENT % WEIGHT	0.4
GLYCOL CONTENT % VOLUME	46
BITTERING AGENT - PPM	5

TYPICAL CHARACTERISTICS BS 6580 (1992), ASTM D 3306, D 4656, D 4985, AFNOR NFR 15-601, FORD, MAN, AUDI, BMW, PORSCHE, DAIMLER CHRYSLER, SAAB, VOLKSWAGEN





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- It has excellent heat conductivity properties and a resistance to foam formation.
- It is neutral to inserts and hoses, compatible with all types of rubber and plastic parts of the cooling system.
- It has an excellent resistance to hard water and very low corrosion inhibitor depletion rates.
- The high-efficiency additive package ensures an exceptional stability of operating properties of the antifreeze
 throughout the entire service life.
- It contains a fluorescent dye allowing identifying even small leakages of the antifreeze in the UV light.

SPECIFICATIONS COOLANT 50 (GREEN)

PH	8 – 8.7
SPECIFIC GRAVITY @ 20°C	1.07
FREEZING POINT	-37 ºC
FOAMING PROPERTIES – VOLUME (ML)	50 MAX
FOAMING PROPERTIES - BREAK TIME (SEC	C) 5 MAX
FLASH POINT (OPEN CUP)	118 °C
ASH CONTENT % WEIGHT	0.4
GLYCOL CONTENT % VOLUME	46
BITTERING AGENT - PPM	5

TYPICAL CHARACTERISTICS

BS 6580 (1992), ASTM D 3306, D 4656, D 4985, AFNOR NFR 15-601, FORD, MAN, AUDI, BMW, PORSCHE, DAIMLER CHRYSLER, SAAB, VOLKSWAGEN





DEL Lubricants produced from highe quality base oil and advanced technology addi ves to give the op mum performance and long las ng protec on for engines in all conditions. We incorporate the best methodologies to produce lubricants which define excellence. Our focus is to constantly improve on forever changing values of viscosi es by researching the limitless possibili es of oil produc on and incorpora ng that knowledge into our products. DEL Lubricants advance technology addi ves ensure that your engine is kept clean while delivering the maximum performance in all sever conditions.



