



## PRODUCT INFORMATION & DATA SHEET

### PRINCE® D2 SAE 20W-50

The Most Robust Heavy-Duty Diesel Engine Oil.

PRINCE® D2 SAE 20W-50 is a premium quality, high-performance, shear-stable multigrade motor oil produced for wide range of heavy-duty diesel engines. This product has been formulated with highly refined base oils and appropriate performance-enhancing additive package, provide outstanding thermal and viscosity stability and feature very good pressure absorption capacity under extreme operating and very high-temperature conditions, designed to elevate engine durability and save on high maintenance cost.

This motor oil meets or even exceeds the following list of OEM's approvals and standards:

API CH-4/CI-4/SL, ACEA A3/B4, ACEA E5/E7, Allison C4, Caterpillar ECF-2, Cummins CES 20076/20077, Daimler MB 228.3/229.1, DDC 93K215, Deutz DQC III-10, MAN 271/3275-1, Mack EO-M Plus, MTU Type 2, Renault VI RLD-2, Volvo VDS-3

Some of the benefits of using this motor oil:

- A premium heavy-duty engine oil that outperforms other commercially available mineral diesel lubricant in terms of deliver better engine efficiency, durability and reliability.
- Dispersant additives fortified with outstanding soot handle properties help to maintain engine cleanliness, by reliably eliminating carbon deposits and sludge.
- Contains special inhibitor agents to prevent foam, corrosion and rust, as well as control acid formed during the burning of fuels.
- Excellent shear and aging stability, minimizes oil degradation and additive depletion to ensure lubricant to 'stay-in-grade'.
- High safety reserve even under marginal or minimal lubricating boundaries as well as long hours operating under heavy loads.
- Low evaporation loss can be achieved through excellent anti-oxidant agents, hence lower oil consumption and maintain desire oil pressure level.
- Outstanding anti-wear agents formulated to offer better wear protection on cylinders, piston rings, valves, etc. to prolong engine life and save on maintenance costs.
- Versatile motor oil that is suitable for mixed fleets operation to reduce inventory costs. It can be used in all light and heavy-duty trucks, agricultural tractors and construction machines.

#### Areas of application

Designed for use in natural aspirated and turbocharged heavy-duty diesel engines, particularly high mileage and older engines that required the viscosity grade and any OEM specifications of this engine oil. This excellent mineral lubricant is suitable for extended oil drain interval which many SHPD engines require.

This motor oil has been formulated for most of commercially available EURO 2 to EURO 5 emission standards diesel engines. Suitable also for gasoline engines that called for an API SL motor oil.

The API specifications of this motor oil are backward compatible with all previous specifications.

## Typical properties

<u>Viscosity Grade</u>		<u>20W-50</u>
Viscosity Index (VI)	ASTM D2270	128
Viscosity at 100 °C; mm <sup>2</sup> /s	ASTM D445	18.5
Viscosity at 40 °C; mm <sup>2</sup> /s	ASTM D445	161.7
Density at 20 °C; kg/m <sup>3</sup>	ASTM D4052	875.0
CCS Viscosity at -20 °C; mP*as	ASTM D5293	5750
Flash Point; °C, open cup	ASTM D92	226
Pour Point; °C	ASTM D97	-30
Total Base Number	ASTM D2896	10.9

## Service recommendations

Follow the oil drain interval recommended by the manufacturers. Extended oil drain interval can be accomplished. Observe the owner's manual booklet. Change oil filter at time of oil change.

## Commercially available product compatibility

Our mineral motor oil is compatible with synthetic, semi-synthetic, and other conventional motor oils. However, peak performance is guaranteed only upon using alone without mixing with other motor oils. Mixing with other commercially available motor oils will affect the extended oil drain interval performance of this oil.

Our motor oil products are designed and developed with appropriate additive package. Hence, aftermarket oil additive products are not recommended for used alongside.

## Product availability

This product may not be available locally. Contact your local distributor.

The information show herein is subject to change without noticed. The product indicated here have been developed by PRINCE LUBRICANTS for use in the areas of applications shown. We reserve all right to alter the characteristics and product properties to align with continually technical development.