



# Power-DF Plus

## Heavy Duty Mineral Based Diesel Engine Oil

### BARDAHL C60 FULLERENE TECHNOLOGY

Fullerene molecules are highly symmetrical and spherical structures. These molecules reduce friction and wear in engines by creating a protective layer of “nano ball bearings” on the engine surfaces and prevents direct surface-to-surface contact. This allows surfaces to glide over one another with minimal friction and wear thus ensuring better engine protection.

### DESCRIPTION

Bardahl Power-DF Plus motor oils are high quality multi-grade diesel engine lubricants which fight soot and prolong engine lifespan through their effective wear protection and outstanding oxidation/stability. Special additives together with Bardahl’s proprietary C60 fullerenes technology combination imparts a high order of dispersant, anti-wear and corrosion preventive properties in the oils. These engine oils are designed to lubricate a very wide range of engines used in the road transport and construction industries, including turbocharged diesel engines. Bardahl Power-DF Plus show improved oil consumption control and are suitable for year-round use.

### PERFORMANCE STANDARD

SAE Grade	10W-30	10W-40	15W-40	20W-50
API	CF-4/SG	CF-4/SG	CF-4/SG	CF-4/SG
Daimler	MB-Approval 227.1	MB-Approval 227.1	MB-Approval 227.1	MB-Approval 227.1
Allison	C-4	-	C-4	-
Caterpillar	TO-2	-	TO-2	-

### FEATURES

- Improved soot control
- Highly resistant to oxidation and oil thickening
- Potential fuel economy benefits
- Keep engine cleaner and more efficient
- Lower operating costs by improving engine durability and reducing down time

### APPLICATIONS

- Highly recommended for high speed, four-stroke, naturally aspirated and turbocharged diesel engines
- Can be used in transmissions where similar engine oil types are specified
- Suitable for gasoline engines requiring an API SG or lower grade engine oil

## TYPICAL PROPERTIES

SAE Grade	10W-30	10W-40	15W-40	20W-50
Density, kg/litre @ 15°C	0.876	0.880	0.881	0.896
Color ASTM	3.0	3.0	3.0	3.0
Kinematic Viscosity, mm <sup>2</sup> /s @ 40°C	78.0	106.0	119.0	175.0
Kinematic Viscosity, mm <sup>2</sup> /s @ 100°C	11.57	15.21	15.50	18.80
Viscosity Index	140	150	136	120
CCS@-15°C, cP	---	---	---	8600
CCS@-20°C, cP	---	---	6300	---
CCS@-25°C, cP	6200	6200	---	---
Sulfated ash, % wt	1.35	1.35	1.35	1.35
Pour Point, °C	-33	-33	-27	-21
Flash Point COC, °C	232	236	238	242
TBN, mg KOH/g	10.5	10.5	10.5	10.5

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