## GLADIATDR CS DW-4D

FULLY SYNTHETIC
PAO BASED PETROL ENGINE OIL
बUIck COLD START

BULWARK GLADIATOR CS oils are advanced and latest generation premium fully synthetic multi-grade motor oils suitable for use in modern engines of passenger cars, light commercial trucks, sport cars and vans including turbocharged engines. The product is formulated using premium quality Poly Alpha Olefin base stocks and advanced technology additive packages to provide quick cold start, best in class start up wear protection, and all-round superior performance.

BULWARK GLADIATOR CS OW-40 is recommended for use during all-season operations, especially in extreme cold weather conditions below $-30^{\circ} \mathrm{C}$ in passenger cars running on petrol fuel and made by European, Japanese, American and Asian manufacturers, which require API SN, ACEA A3/B4 performance levels and SAE OW-40 viscosity.

## PERFORMANCE LEVEL*

- API SN
- ACEA A3/B4
- MB 229.3, 229.5
- PORSCHE A40
- VW 502.00/505.00
- BMW LL-01
- RN 0700/0710
- PSA B71 2296


## KEY BENEFITS

- Easy cold start and excellent fluidity at low temperature provides engine start-up wear protection.
- Excellent anti-oxidation \& anti-corrosion properties provide better engine protection in severe operating conditions and at varying loads.
- Advanced formulation minimizes oil consumption and aids in smoother engine operation in "start-stop" mode.
- Prevents the formation of high and low temperature deposits on the engine components.
- High quality acid neutralizing additives protects the engine from corrosion.

TYPICAL CHARACTERISTICS**

| Properties | Test Methods | 0W-40 |
| :--- | :--- | :--- |
| Density @ $29.5^{\circ} \mathrm{C}, \mathrm{Kg} / \mathrm{m3}$ | ASTM D4052 | 0.850 |
| Kinematic Viscosity @ $100^{\circ} \mathrm{C}$ cSt | ASTM D7042 | 13.51 |
| Viscosity Index | ASTM D2270 | 176 |
| Cold Cranking Viscosity at $-35^{\circ} \mathrm{C}, \mathrm{mPa}$-s | ASTM D5293 | 4020 |
| Borderline Pumping Viscosity at $-40^{\circ} \mathrm{C}, \mathrm{mPa}$-s | ASTM D4684 | 12,320 |
| Sulphated Ash, \% | ASTM D874 | 0.82 |
| Flash Point, COC, ${ }^{\circ} \mathrm{C}$ | ASTM D92 | 232 |
| Foam Stability | ASTM D892 |  |
| Seq I |  | $0 / 0$ |
| Seq II |  | $0 / 0$ |
| Seq III |  | $0 / 0$ |
| Pour Point, ${ }^{\circ} \mathrm{C}$ | ASTM D97 | -54 |
| Total Base Number, mg KOH/g | ASTM D2896B | 8.60 |

* Performance levels indicated may include licensed API specs or specs that our products meet or exceed
** Typical Characteristics are typical values. Minor variations within the permissible tolerance limits maybe expected on the final product.


## STORAGE

All packages should be stored under cover. Where outside
storage is unavoidable, drum storage is unavoidable, drums the possible ingress of water and the obliteration of drum markings. Products should not be stored
above $60^{\circ} \mathrm{C}$, exposed to hot sur or freezing conditions.

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[^0]:    This data sheet and the information it contains is believed to be accurate as of the date of printing. However, no warranty or representation, express or implied, is made as to its accuracy or completeness. Data provided is based on standard tests under laboratory conditions and is given as a guide only. Users are advised to ensure that they refer to the latest version of this data sheet. It is the responsibility of the user to evaluate and use products safely, to assess suitability for the intended application and to comply with all applicable laws and regulations. Material Safety Data Sheets No responsibility is taken by either Bulwark International UK Ltd or its subsidiaries for any damage or injury resulting from abnormal use of the material, from any failure to adhere to recommendations, or from hazards inherent in the nature of the material. All products, services and information supplied are provided under our standard conditions of sale. Please consult our local representative if you require any further information.

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