BELL CHEMICALS

HIGH PERFORMANCE LUBRICANTS

TECHNICAL DATA SHEET

Date of Issue: August 2026

BELL STAR MB SAE 5W-40

High-Performance Synthetic Motor Oil for Gasoline & Diesel Passenger Vehicles

PRODUCT DESCRIPTION

BELL STAR MB SAE 5W-40 is a high-performance synthetic motor oil designed for the lubrication of modern gasoline and diesel engines in passenger cars and light commercial vehicles. It is especially suitable for turbocharged, multi-valve, and direct-injection diesel engines without Diesel Particulate Filters (DPF). It delivers robust protection against wear, oxidation, and deposit formation under severe driving conditions.

KEY FEATURES & PERFORMANCE BENEFITS

- **Enhanced Wear & Oxidation Protection:** Protects vital engine components against friction, high-temperature thermal degradation, and deposit formation.
- **Superior Cold-Start Performance:** Excellent low-temperature fluid dynamics ensure rapid oil circulation during cold winter starts, reducing engine wear.
- **Non-DPF Compatibility:** Specifically formulated for vehicles not equipped with Diesel Particulate Filters (non-DPF systems).
- **Extended Drain Capability:** High thermal stability allows for extended oil change intervals in full compliance with OEM manufacturer guidelines.

PERFORMANCE SPECIFICATIONS & OEM STANDARDS

API Specifications	API SN / CF
ACEA Specifications	ACEA A3 / B4
OEM Performance Levels	MB 229.3 / MB 229.5, VW 502 00 / VW 505 00, BMW LL-01, Porsche A40, Renault RN0700 / RN0710, PSA B71 2296, FIAT 9.55535-N2-M2

PHYSICO-CHEMICAL CHARACTERISTICS

PROPERTY	TEST METHOD	UNIT	SAE GRADE 5W-40 (ALLOWED RANGE / VALUE)
Kinematic Viscosity @ 100°C	ASTM D445	mm^2/s (cSt)	13.50 – 15.00
Viscosity Index (VI)	ASTM D2270	-	155
Flash Point (COC)	ASTM D92	°C	229
Pour Point	ASTM D97	°C	-39

PACKAGING

Available in 1-liter and 5-liter plastic packaging.

STORAGE & HANDLING

Store in original, tightly closed packaging in rooms protected from moisture, atmospheric influences, and fire hazards at temperatures between 5°C and 30°C.

** Note: The values shown in the physical-chemical properties table represent typical production data and allowable parameter ranges. They do not constitute a binding product specification. Safe handling guidelines should be followed according to the Material Safety Data Sheet (MSDS).*