

## AUTOMOTIVE LUBRICANTS. PASSENGER CARS

# CEPSA XTAR MAX HYBRID

### DESCRIPTION ECO-FRIENDLY PRODUCT

100% synthetic lubricant developed specifically for hybrid vehicles. It offers superior fuel economy and protection in combustion engines accompanying electric engines, thus favoring the reduction of CO<sub>2</sub> emissions and supporting environmental sustainability.

#### PRODUCT APPLICATIONS

- Recommended for plug-in (PHEV) and conventional (HEV) hybrid vehicles, as well as for range-extended electric vehicles (REEV), which have both an internal combustion engine and an electric motor.
- Developed for the lubrication of more modern gasoline engines (multi-valve, turbocharged, direct injection), designed for the use of low friction and viscosity oils (low HTHS).
- Allows for long drain intervals working under a wide range of operating conditions.
- Excellent cold fluidity that allows the oil to circulate rapidly and protect the engine in the event of frequent stops and starts.
- Good compatibility with engine seals and materials, as well as with biofuels.
- It is compatible with the previous API SN Plus, SN, SM, SL and SJ specifications and with the previous ILSAC categories.

#### PRODUCT PERFORMANCE

- High performance in the current market of ECO oils (ecological because it helps to reduce CO<sub>2</sub> emissions, and economical because it favors fuel economy of between 3–5% compared to a conventional oil, depending on the viscosity).
- Its good emulsion properties to prevent the dilution of water and/or fuel, as well as its anti-corrosion and anti-rust capacity, guarantee good performance in hybrid vehicles, preventing the formation of white sludge.
- Ensures protection against wear generated by low-speed pre-ignition (LSPI), which can occur in modern turbocharged gasoline engines.
- Reduces the formation of deposits, maintaining exceptional level of cleanliness and protecting the engine's internal components (bearings, pistons, etc.) against wear, thereby lengthening their service life.

#### SPECIFICATIONS

- **0W-16:** API SP Resource Conserving; ILSAC GF-6B
- **0W-20, 5W-20:** API SP Resource Conserving; ILSAC GF-6A
- **5W-30:** API SP; ACEA C2, C3

#### TYPICAL CHARACTERISTICS

CHARACTERISTIC	UNITS	METHOD	CEPSA XTAR MAX HYBRID			
			0W-16	0W-20	5W-20	5W-30
<b>SAE Grade</b>	-	-	<b>0W-16</b>	<b>0W-20</b>	<b>5W-20</b>	<b>5W-30</b>
Density at 15°C	g/ml	ASTM D 4052	0.843	0.844	0.878	0.848
Viscosity at 100°C	cSt	ASTM D 445	7.1	8.3	8.5	11.7
Viscosity at 40°C	cSt	ASTM D 445	36.3	42.7	46.3	67.3
Viscosity Index	-	ASTM D 2270	162	173	163	170
CCS Viscosity at -35° C	cP	ASTM D 5293	5100	4640	-	-
CCS Viscosity at -30°C	cP	ASTM D 5293	-	-	3660	5110
Pour Point	°C	ASTM D 5949	-42	-42	-42	-42
Flash Point, COC	°C	ASTM D 92	238	240	234	234
Base number, TBN	mg KOH/g	ASTM D 2896	9.0	9.0	9.0	7.3
Sulfated ash	% (m/m)	ASTM D 874	0.8	0.8	0.8	0.7
HTHS Viscosity at 150°C	cP	ASTM D 4683	2.5	2.7	2.8	3.6

#### HEALTH & SAFETY AND ENVIRONMENT

A Material Safety Data Sheet providing information on product hazards, handling precautions, first aid measures, and relevant environmental data is available for this product as per applicable legislation.

The typical values of the characteristics appearing in the table are average values given for guidance purposes only and do not constitute a guarantee. These values may be modified without any prior warning.