

# **MAK GE 20W-50**

## Engine oil for CNG, LPG and dual fuel vehicles

MAK GE 20W-50 oil is a premium quality oil blended for use in 4-stroke and spark-ignition engines running on CNG, LPG or dual fuel requiring low ash oil. It is blended from high viscosity index base stock. Special additive chemistry imparts excellent resistance to oxidation, nitration and thermal degradation of the oil. They offer very high control of deposit, formation of harmful acids and wear of engine components. MAK GE 20W-50 is designed to help prevent knocking and thereby enable engines to run at full load and optimum efficiency. Viscosity control allows reduction in friction losses. It offers excellent protection to engine components against rust and corrosion. It is also designed to meet the demands of 'lean burn' technology employed by modern engines and are compatible with the catalyst of catalytic converters.

#### **Applications:**

MAK GE 20W-50 oil is recommended for older 4-stroke and spark-ignition engines running fully on compressed natural gas (CNG), LPG or dual fuels. It is suitable for light duty vehicles like bus, taxi, car and autorickshaw (4 stroke). The engines can be naturally aspirated or turbocharged and medium to high speed.

#### Performance/ Benefits:

**Excellent Resistance to Oxidation and Nitration** — outstanding resistance to the effects of oxidising agents and nitration. Resists viscosity increase, filter deposits and formation of acid. Minimises sludge formation, filter choking piston ring and valve sticking. Ensures reliability, longer drain period and less maintenance.

**Excellent Antiwear Characteristics** – protects critical engine parts like heavily loaded valve train components, pistons, liners, bearings and gear trains. Enhances engine performance and reliability.

Clean Engine – appropriate ash content controls deposits in combustion chamber, on pistons, valves and spark plugs to maintain maximum efficiency. Highly effective detergency and dispersancy additives control carbon formation and varnish deposits to maintain engine cleanliness even during extended drain interval.

**Low Oil Consumption** — low oil volatility formulation minimises evaporation, extends operating life and reduces top-up oil quantity.

**Extended Drain Interval** — enhances operating life of oil, controls viscosity, reduces sludge and deposits formation through high quality base stock and additive system. Increases engine availability. For optimum results regular inuse oil analysis is strongly recommended.

### **Performance Level/ Specification:**

API SF/CD

Typical Physico-Chemical Data: MAK GE 20W-50

Characteristics	Method	Value
SAE Viscosity	SAE J300	20W-50
Color	Visual	Brown
Appearance	Visual	Clear &
		Bright
Density @15°C, g/cc	ASTM D1296	0.8876
Kinematic Viscosity @40°C, cSt	ASTM D445	238
Kinematic Viscosity @100°C, cSt	ASTM D445	20.7
Viscosity Index	ASTM D2270	102
Copper Corrosion, 100°C, 3 hrs.	ASTM D130	1a
Flash Point, <sup>o</sup> C	ASTM D92	240
Pour Point, <sup>o</sup> C	ASTM D97	-21
Foaming Tendency, ml	ASTM D892	
a) Sequence I		Nil / Nil
b) Sequence II		10 / Nil
c) Sequence III		Nil / Nil

#### **Storage & Handling:**

The product should be stored inside. Keep it properly sealed to avoid contamination. Avoid freezing.

#### Health & Safety:

This oil is unlikely to be hazardous when properly used in recommended applications. Contamination of the oil from other oils, greases, chemicals, dirty water etc. can occur during the use. It should be avoided. Regular monitoring of the in-use product is recommended.