



# Gulf MAX GDI

## Resource Conserving Motor Oil

### Product Description

**Gulf MAX GDI** series is most advanced passenger car motor oil specially developed for the modern turbocharged direct injection gasoline engines in passenger cars, sport utility vehicles, vans, and light-duty trucks. These oils are formulated with special additives and high quality mineral base stocks to provide protection to modern turbocharged direct injection gasoline engines from detrimental effects of possible low speed pre-ignition phenomenon, timing chain wear, protection of vehicle emission system & turbocharger components. Further, SAE 5W-20, 5W-30 and 10W-30 viscosity grades help in improving & retaining fuel economy and provides excellent protection against wear, deposits & sludge build-up and help protect engines even while operating on ethanol-containing fuels up to E85. These oils meet the highest API quality API SP and Resource conserving ILSAC GF-6A for SAE Grades 5W-20, 5W-30 & 10W-30 and API SP for SAE Grades 10W-40, 15W-40, 20W-50.

### Features & Benefits

- Latest additive technology coupled with severely hydroprocessed base stocks makes these oils robust and provides improved sludge protection, piston cleanliness, turbo-charger protection, seal compatibility and wear protection.
- Compatible with ethanol-containing fuels up to E85. Also helps in emission system durability.
- Provides very good lubrication at low temperatures and protect engine at high temperatures.
- The Special friction modifiers used in the Resource Conserving oils improve & retain fuel economy.
- Superior volatility characteristics reduce oil consumption and hydro-carbon pollution.
- These grades are compatible with conventional passenger car motor oils.
- These are specially formulated to provide Low Speed Pre-Ignition (LSPI) protection and timing chain wear for modern turbocharged direct injection gasoline engines.

### Applications

- North American, European & Japanese high output gasoline engines in passenger cars, sport utility vehicles, vans, and light-duty trucks where API SP, SN Plus, ILSAC GF-6A and / or API SN, API SM, API SL quality oils are specified (all grades).
- Passenger cars and Light Duty Vehicles running on gasoline and ethanol-containing fuels up to E85.
- Suitable for modern turbocharged direct injection gasoline engines where low speed pre-ignition protection and timing chain wear is required.

### Specifications, Approvals & Typical Properties

Has the Following Approvals		5W-20	5W-30	10W-30	10W-40	15W-40	20W-50
API SP (Resource Conserving), API SN Plus, API SN, ILSAC GF-6A		X	X	X			
API SP, API SN Plus, API SN					X	X	X
Typical Properties							
Test Parameters	ASTM Method	Typical Values					
Viscosity @ 100 °C, cSt	D 445	8.4	9.6	10.1	12.9	14.3	19.9
Viscosity Index	D 2270	145	158	138	155	150	135
Flash Point, °C	D 92	233	235	236	239	242	244
Pour Point, °C	D 97	-42	-42	-36	- 39	-36	- 30
TBN, mg KOH/g	D 2896	7.1	7.1	7.2	7.1	7.1	7.1
Density @ 15°C, Kg/l	D 1298	0.865	0.866	0.868	0.868	0.872	0.876
CCS, cP (at °C)	D 5293	5730 (-30)	6378 (-30)	5960 (-25)	6362 (-25)	6073 (-20)	8308 (-15)
MRV, cP (at °C)	D 4684	15800 (-35)	21100 (-35)	18700 (-30)	20400 (-30)	17600 (-25)	22400 (-20)
HTHS, cP	D 4683	2.62	3.0	3.1	3.7	4.0	5.2

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Properties mentioned are typical only and minor variations, which do not affect product performance, are expected to arise in normal manufacturing processes. Please follow equipment manufacturer's recommendations for performance level and viscosity grade. The Safety Data Sheet for this product is available from your nearest Gulf Distributor. Please consult our local representative if any further information is required.

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