

# Midgrade Unleaded Gasoline

Midgrade unleaded gasoline is a high quality gasoline blended to meet the requirements of cars and trucks equipped with emission control devices. In addition to this, midgrade unleaded provides a higher octane which will help to prevent engine knock and run-on in most gasoline engines requiring unleaded gasoline.

The minimum octane (anti-knock index), (R+M)/2, for different areas of Western Canada are as follows:

Area	(R+M)/2 (Minimum)*
Coastal British Columbia	89.0
Interior British Columbia	88.5
Alberta	88.5
Saskatchewan	88.5
Manitoba	89.0

\* Canadian General Standards Board

Midgrade unleaded gasoline is blended in both summer and winter grades. The winter grade is lighter than the summer grade to allow for easier starting in cold temperatures. The difference between the two grades is not critical during the changeover period. A summer grade midgrade unleaded gasoline will perform normally in colder temperatures.

Midgrade unleaded gasoline is blended with various additives to improve the performance in modern engines which require a higher octane unleaded gasoline. They include an octane booster, antioxidant agents, and cleaning agents. These additives give midgrade unleaded gasoline a higher octane rating while maintaining good operating characteristics.



## Typical Specifications - Midgrade Unleaded Gasoline

	May 1 to September 30 Summer	October 1 to April 30 Winter
Color	Green	Green
API Gravity, °	59	60
Initial Boiling Point (IBP), °C	29	26
10% Evaporated, °C	37	34
50% Evaporated, °C	94	93
90% Evaporated, °C	157	158
End Point, °C	193	194
Lead Content, grams/litre	0.0	0.0

	Sask.	Man.	Alta.	Int. B.C.	Cstl. B.C.	Sask.	Man.	Alta.	Int. B.C.	Cstl. B.C.
Research Octane	95.6	93.9	94.5	94.5	95.6	95.0	94.3	94.3	94.4	96.1
Motor Octane	84.6	84.3	83.9	83.9	85.0	84.4	84.9	84.1	84.0	84.5
Anti-knock Index $\frac{(R+M)}{2}$	90.1	89.1	89.2	89.2	90.3	89.7	89.6	89.2	89.2	90.3