



1. What is the octane number?

Octane is a measure of a gasoline's ability to resist auto-ignition which can cause engine knock.

7. Why F1/F2 motors by CFR Engines Inc. have to be used for measuring octane number?

CFR engines, produced by CFR Engines Inc. are the only instruments to be used for octane ratings, since they are cited in the internationally-recognized standard test methods ASTM D2699/D2700

OCTAN NUMBER

2. What is RON?

Research Octane Number is determined by running the fuel in a test determined by running the fuel in a test engine with a variable compression ratio under controlled conditions, and comparing the results with those for mixtures of iso-octane and n-heptane. The Compression ratio is varied during the test in order to challenge the fuel's antiknocking tendency as an increase in the compression ratio will increase the chances of knocking.



6. Why we do care about octane number?

Octane rating measure a fuels ability to resist the spontaneous ignition. So the higher octane rating means that your car will burn slower. In addition that every single engine has a specific octane number and when it use a lower number the engine can be damaged for a short term

3. What is MON?

Motor Octane Number (MON), is determined at 900 rpm engine speed instead of the 600 rpm for RON. MON testing uses a similar test engine to that used in RON testing, but with a preheated fuel mixture, higher engine speed and variable ignition timing to further stress the fuel's knock resistance.

4. What are the octane rating methods?

RON is measured according to the standard test methods:
ASTM D2699, EN ISO 5164

MON is measured according to the standard test methods:
ASTM D2700, EN ISO 5163

5. Which means 90 octanes?

90 octane means that the fuel has the same knocking characteristic as a mixture of 90% iso-octane and 10% n-heptane.