

**Uniform Tire Quality Grading System** The Uniform Tire Quality Grading System (UTQGS) is a tire information system that provides buyers with information on three categories:

- Treadwear
- Traction
- Temperature

Each tire manufacturer performs its own tests in these areas, following government prescribed test procedures. Each manufacturer then assigns grades that are branded on the tire. This is known as the Uniform Tire Quality Grade Labeling (UTQGL).

### **Treadwear**

Treadwear grades typically range from 60 to over 500, in twenty point increments. It's important to remember that the actual life of any tire is determined by the road surface quality, driving habits, inflation, wheel alignment and the rotation it experiences. To receive a treadwear grade, a tire is tested under controlled conditions on a government prescribed test course which does not necessarily simulate the actual application for which a given tire is designed to perform. As a result of these test parameters, there is no reliable way to assign miles of wear to treadwear grade points.

Treadwear ratings are determined on a 400 mile government test course covering specified sections of public roads near San Angelo, Texas. A group of not more than four test vehicles travels the course in a convoy so that all tires experience the same conditions. Tread groove depths of the tires being tested are measured after each 800 miles. The same procedure is followed for a set of control or "course monitoring tires". Upon completion of the 7200 mile test, the rating results of both tests are compared, and the tires being tested are assigned a treadwear rating by the tire manufacturer.

The best way to use treadwear ratings when selling tires is to compare one rating to another. For instance, a tire with a treadwear grade of 400 might be expected to last twice as long as a tire that has a grade of 200.

### **Traction**

Traction grades indicate the measurement of a tire's ability to stop a car in straight-ahead motion on a wet test surface pavement. It does not measure straight-ahead acceleration. It's important to remember that traction rating tests are performed only for straight-ahead sliding on concrete and asphalt surfaces that have a specified degree of wetting which simulates most road surfaces in a rainstorm. The ratings that result from these tests may not apply to cornering traction or peak values of straight-ahead braking force like those experienced in non-skid braking tests. Traction grades range from "A" to "C", with "A" being the highest attainable grade.

Traction ratings are established on government maintained skid pads. Twenty measurements are taken with an industry standard control tire on an asphalt surface and averaged. The same number of measurements are made on a concrete surface. Corresponding measurements are then made on the tires being tested. Once the results of the tests are compared, traction ratings based on government prescribed coefficient levels are assigned to the tires that were tested.

### **Temperature**

Temperature grades also range from "A" to "C", with A being the highest. Temperature grades represent a properly maintained tire's ability to dissipate heat under controlled indoor test wheel conditions.

Temperature ratings are determined by running tires on an indoor roadwheel test under specified conditions. Successive 30 minute runs are made in 5 mph increments starting at 75 mph and continuing until the tire fails. A tire is graded "C" if it meets the minimum performance required by DOT. Grades of "B" and "A" represent higher levels of performance than the minimum required by DOT.

