National Law Enforcement and Corrections Technology Center

A Program of the National Institute of Justice

BULLETIN

August 1999

A Comprehensive Evaluation of 1999 Patrol Vehicle Tires

In April 1999, the National Law Enforcement and Corrections Technology Center (NLECTC) of the National Institute of Justice conducted the third comprehensive evaluation of patrol vehicle tires.[1] This NLECTC bulletin is a synopsis of the results from that evaluation; a detailed report is also available that contains statistical analysis of the test data. Page 5 of this bulletin contains information on how to obtain the report.

The major manufacturers of police tires were asked to participate and submit samples of tires for evaluation. Three companies donated tires for testing. The three tire brands tested were the Firestone Firehawk PV41, General XP–2000 V4, and Goodyear Eagle RS–A. The technical descriptions of these tires may be found on page 6.

Each brand was subjected to eight tests to measure its performance in wet and dry road conditions and determine its tread wear characteristics. The tires were tested on a 1999 Ford Police Interceptor and a 2000 Chevrolet Impala. These two cars were used as test vehicles because they will represent the vast majority of police cars in service use by law enforcement agencies during the next 2 years.

Because driving conditions in different parts of the country vary widely, no specific "winners" or "losers" were identified. It is important that your department place the appropriate weights on those portions of the test data most representative of the conditions that you may encounter. A sample distribution of category weights is shown in Table 1.

The test results may be used in two ways. First, they may be used as is to determine the tires that best meet the needs of your department. In this case, you should emphasize some portions of the evaluation to reflect the needs of your department. Second, the overall test results may be used to adjust the manufacturer's bid price for these tire brands. In each test category, the absolute difference between a tire and the best scoring tire is divided by the best tire's score, resulting in a "deviation factor." This factor is then multiplied by a category weight, such as those listed in Table 1, to produce a weighted category score. The total of these weighted scores for a particular tire is then used to adjust the tire's bid price.

Static Circle Test

Dry Pavement Surface

Objective: Determine the road-holding performance characteristics of the test tires in a steady-state turning situation

Table 1 **Tests and sample category weights**

Test	Sample category weight*
Static circle test (dry)	15
Static circle test (wet)	5
Serpentine test (dry)	20
Serpentine test (wet)	5
Stopping distance (dry)	15
Stopping distance (wet)	5
High-speed handling	30
Tire wear measurement	5
Total	**100**

* This table presents an example only. It is important that you assign weights to these categories according to your agency's needs.

[1] The tests were conducted by Independent Testing & Consulting, Inc.

on a dry pavement surface. The course used has a flat polished concrete surface on which a circle measuring 628.3 feet in circumference has been marked. The driver is allowed 2 laps to accelerate and stabilize the vehicle at the highest speed possible while remaining within the marked lane. Once the vehicle is stabilized, the following 8 laps are timed, and the average of the timed laps is used to determine the final score for this portion of the evaluation, which is expressed in lateral G's attained. Lateral G's are the measurement of the resistance of lateral movement before the tire loses adhesion and the vehicle begins to slip. Deficiencies in tire adhesion, or the tendency of the tire to slip sideways under hard, steady-state cornering maneuvers, will result in slower speeds, longer lap times, and a relatively lower overall score on this portion of the evaluation.

Methodology: Following a 2-lap warmup, each test vehicle equipped with the make and model of tire to be evaluated makes a minimum of 8 timed laps around the static circle course. The final score for each tire on this portion of the evaluation is the average of the 8 timed laps and is expressed as lateral G's attained. Table 2 shows the results from the dry pavement portion of the test.

Wet Pavement Surface

Objective: Determine the road-holding performance characteristics of the test tires in a steady-state turning situation on a wet pavement surface having a constant $^3/_8$-inch to $^1/_2$-inch of water depth. The course used has a flat polished concrete surface on which a circle has been created using pylons. The circle measures 628.3 feet in circumference. The driver is allowed 2 laps to accelerate and stabilize the vehicle at the highest speed possible while remaining within the marked lane. Once the vehicle is stabilized, the following 8 laps are timed, and the average of the timed laps is used to determine the final score for this portion of the evaluation, which is expressed in lateral G's attained. Deficiencies in tire adhesion, or the tendency of the tire to slip sideways under hard, steady-state cornering maneuvers, will result in slower speeds, longer lap times, and a relatively lower overall score on this portion of the evaluation.

Methodology: Following a 2-lap warmup, each test vehicle equipped with the make and model of tire to be evaluated makes a minimum of 8 timed laps around the static circle course. The final score for each tire on this portion of the evaluation is the

Table 2 **Results of the static circle test, dry pavement surface conditions**

Car: 2000 Chevrolet Impala

Tire Size: P225/60R–16

	Elapsed time (seconds)	Average speed (mph)	Lateral G's	Percent difference*
Firestone Firehawk PV41**	13.537	31.65	0.669	1.84%
General XP–2000 V4**	13.293	32.23	0.694	0.00%
Goodyear Eagle RS–A**	13.682	31.31	0.655	2.93%

Car: 1999 Ford Police Interceptor

Tire Size: P225/60R–16

Firestone Firehawk PV41***	13.352	32.09	0.688	0.00%
General XP–2000 V4***	13.930	30.76	0.632	4.33%
Goodyear Eagle RS–A***	13.982	30.64	0.627	4.72%

* The percent difference is obtained by subtracting the elapsed time of the tire of interest from the elapsed time of the best scoring tire (lowest score is best) and dividing that number by the elapsed time of the best scoring tire.

** Analysis showed no statistically significant difference between the Firestone and the Goodyear on the Chevrolet Impala; however, there is a statistically significant difference between both of them and the General in this test.

*** Analysis showed no statistically significant difference between the General and the Goodyear on the Ford Police Interceptor; however, there is a statistically significant difference between both of them and the Firestone in this test.

Table 3 **Results of the static circle test, wet pavement surface conditions**

Car: 2000 Chevrolet Impala

Tire Size: P225/60R–16

	Elapsed time (seconds)	Average speed (mph)	Lateral G's	Percent difference*
Firestone Firehawk PV41**	20.955	20.44	0.279	0.84%
General XP–2000 V4**	21.295	20.12	0.271	2.47%
Goodyear Eagle RS–A**	20.781	20.63	0.285	0.00%

Car: 1999 Ford Police Interceptor

Tire Size: P225/60R–16

Firestone Firehawk PV41***	21.632	19.81	0.262	0.11%
General XP–2000 V4***	21.608	19.83	0.263	0.00%
Goodyear Eagle RS–A***	22.169	19.33	0.250	2.60%

* The percent difference is obtained by subtracting the elapsed time of the tire of interest from the elapsed time of the best scoring tire (lowest score is best) and dividing that number by the elapsed time of the best scoring tire.

** Analysis showed no statistically significant difference between the three brands of tires tested on the Chevrolet Impala in this test.

*** Analysis showed no statistically significant difference between the Firestone and the General on the Ford Police Interceptor; however, there is a statistically significant difference between both of them and the Goodyear in this test.

Table 4 **Results of the serpentine test, dry pavement surface conditions**

Car: 2000 Chevrolet Impala

Tire Size: P225/60R–16

	Elapsed time (seconds)	Average speed (mph)	Percent difference*
Firestone Firehawk PV41**	8.762	54.48	0.00%
General XP–2000 V4**	8.940	53.39	2.03%
Goodyear Eagle RS–A**	8.802	54.24	0.46%

Car: 1999 Ford Police Interceptor

Tire Size: P225/60R–16

Firestone Firehawk PV41***	8.938	53.41	0.00%
General XP–2000 V4***	9.012	52.97	0.83%
Goodyear Eagle RS–A***	9.072	52.62	1.50%

* The percent difference is obtained by subtracting the elapsed time of the tire of interest from the elapsed time of the best scoring tire (lowest score is best) and dividing that number by the elapsed time of the best scoring tire.

** Analysis showed no statistically significant difference between the Firestone and the Goodyear on the Chevrolet Impala; however, there is a statistically significant difference between both of them and the General in this test.

*** Analysis showed no statistically significant difference between the Firestone and the General on the Ford Police Interceptor; however, there is a statistically significant difference between both of them and the Goodyear in this test.

Table 5 **Results of the serpentine test, wet pavement surface conditions**

Car: 2000 Chevrolet Impala

Tire Size: P225/60R–16

	Elapsed time (seconds)	Average speed (mph)	Percent difference*
Firestone Firehawk PV41**	8.879	32.26	0.00%
General XP–2000 V4**	9.059	31.62	2.03%
Goodyear Eagle RS–A**	8.914	32.13	0.39%

Car: 1999 Ford Police Interceptor

Tire Size: P225/60R–16

Firestone Firehawk PV41***	9.048	31.65	0.00%
General XP–2000 V4***	9.223	31.05	1.93%
Goodyear Eagle RS–A***	9.146	31.31	1.08%

* The percent difference is obtained by subtracting the elapsed time of the tire of interest from the elapsed time of the best scoring tire (lowest score is best) and dividing that number by the elapsed time of the best scoring tire.

** Analysis showed no statistically significant difference between the Firestone and the Goodyear on the Chevrolet Impala; however, there is a statistically significant difference between both of them and the General in this test.

*** Analysis showed no statistically significant difference between the General and the Goodyear on the Ford Police Interceptor; however, there is a statistically significant difference between both of them and the Firestone in this test.

average of the 8 timed laps and is expressed in lateral G's attained. Table 3 presents the overall results of the test under wet pavement surface conditions.

Serpentine Test

Dry Pavement Surface

Objective: Determine each tire's transient response characteristics and performance on a dry pavement surface. The course used is straight and flat with 550 feet of asphalt and 150 feet of concrete. Pylons are set in a straight line and spaced 100 feet apart. The approach speed is 60 mph, and the driver is required to weave through the pylons while maintaining speed as close to the approach speed as possible. Serious deficiencies in transient response will result in longer elapsed times, slower speeds, and a lower overall score on this portion of the evaluation.

Methodology: Following a 2-mile tire warmup, each test vehicle equipped with the make and model of tire to be evaluated is driven through the serpentine course a minimum of 15 times. The final score for each tire is the average of the fastest 12 runs. Table 4 presents the results from the dry pavement portion of this test.

Wet Pavement Surface

Objective: Determine each test tire's transient response characteristics and performance on a wet pavement surface. The course used is straight and flat with approximately 420 feet of asphalt. Pylons are set in a straight line and spaced 60 feet apart. The approach speed is 35 mph, and the driver is required to weave through the pylons while maintaining speed as close to the approach speed as possible. Serious deficiencies in transient response during wet pavement maneuvering will result in longer elapsed times, slower speeds, and a lower overall score on this portion of the evaluation.

Methodology: Following a 2-mile tire warmup, each test vehicle equipped with the make and model of tire to be evaluated is driven through the serpentine course a minimum of 15 times. The final score for each tire is the average of the fastest 12 runs. Table 5 shows the results of the test under wet pavement surface conditions.

Stopping Distance

Dry Pavement Surface

Objective: Determine the performance characteristics of the test tires in a simulated "panic" stop of a patrol vehicle on a dry pavement surface. The course used has a straight, flat, granite asphalt surface. A center lane marks where the braking maneuvers are to be done. The approach speed is just over 60 mph. The test vehicle is in the Anti-Lock Brake System (ABS) mode when the driver applies the brakes as close to 60 mph as possible. Both the exact speed at brake application and the distance from brake application to complete stop are electronically recorded. Average deceleration rate is then determined. Deficiencies in tire adhesion will result in longer stopping distances and a relatively lower score on this portion of the evaluation.

Methodology: Following a 1-mile tire warmup, each test vehicle equipped with the make and model of tire to be evaluated makes a minimum of six measured panic stops with the ABS in operation. The final score for each tire on this portion of the evaluation is the average of the six measured stops. Table 6 presents the test results for the dry pavement portion of this test.

Table 6 **Results of the stopping distance test, dry pavement surface conditions**

	Average deceleration rate (ft./sec^2)	Stopping distance* (feet)	Percent difference**
Car: 2000 Chevrolet Impala			
Tire Size: P225/60R–16			
Firestone Firehawk PV41***	25.96	149.2	2.99%
General XP–2000 V4***	26.50	146.1	0.97%
Goodyear Eagle RS–A***	26.76	144.7	0.00%
Car: 1999 Ford Police Interceptor			
Tire Size: P225/60R–16			
Firestone Firehawk PV41***	26.49	146.2	1.89%
General XP–2000 V4***	26.76	144.7	0.89%
Goodyear Eagle RS–A***	27.00	143.4	0.00%

* Calculated stopping distance from 60mph. Both vehicles are ABS equipped

** The percent difference is obtained by subtracting the average deceleration rate of the tire of interest from the average deceleration rate of the best scoring tire (highest score is best) and dividing that number by the average deceleration rate of the best scoring tire.

*** Analysis showed no statistically significant difference between the Goodyear and the General on either the Chevrolet Impala or the Ford Police Interceptor; there is also no statistically significant difference between the General and the Firestone on either the Chevrolet or the Ford. However, there is a statistically significant difference between the Goodyear and the Firestone on both vehicles in this test.

Wet Pavement Surface

Objective: Determine the performance characteristics of the test tires in a simulated "panic" stop of a patrol vehicle on a wet pavement surface. The course used has a flat, granite, asphalt surface. Pylons are set up to mark where the braking maneuvers are done. The approach speed is just over 60 mph. The test vehicle is in the ABS mode when the driver applies the brakes as close to 60 mph as possible. Both the exact speed at brake application and the distance from brake application to complete stop are electronically recorded. Average deceleration rate is then determined. Deficiencies in tire adhesion will result in longer stopping distances and a relatively lower score on this portion of the evaluation.

Methodology: Following a 1-mile tire warmup, each test vehicle equipped with the make and model of tire to be evaluated makes a minimum of six measured panic stops with the ABS in operation. The final score for each tire on this portion of the evaluation is the average of the six measured stops. Table 7 shows the results of the tests performed under wet pavement surface conditions.

High-Speed Handling

Objective: Determine the tire's high-speed pursuit handling characteristics and performance on a 1.43-mile (7,553 feet) road racing type course. The course contains high-speed curves, low-speed corners, and straightaways, and with the exception of traffic, simulates actual pursuit conditions in the field. This evaluation is a test of the manufacturers' success in blending the transient response, cornering, and rapid deceleration characteristics of a tire. Serious deficiencies in any of these critical areas will result in longer lap times and a lower overall score on this portion of the evaluation.

Methodology: Following 2 warmup laps, each test vehicle equipped with the make and model of tire to be evaluated is driven over the course by 3 drivers for at least 15 timed laps. The final score for each tire will be the average of the fastest 4 laps by each of the drivers, for a total of 12 laps. Table 8 presents the results of this test.

Table 7 **Results of the stopping distance test, wet pavement surface conditions**

Car: 2000 Chevrolet Impala

Tire Size: P225/60R–16

	Average deceleration rate (ft./sec^2)	Stopping distance* (feet)	Percent difference**
Firestone Firehawk PV41***	24.44	163.9	0.00%
General XP–2000 V4***	24.24	163.0	0.83%
Goodyear Eagle RS–A***	23.50	166.5	3.85%

Car: 1999 Ford Police Interceptor

Tire Size: P225/60R–16

Firestone Firehawk PV41****	24.62	159.1	2.15%
General XP–2000 V4****	24.48	161.4	2.70%
Goodyear Eagle RS–A****	25.16	156.1	0.00%

* Calculated stopping distance from 60mph. Both vehicles are ABS equipped

** The percent difference is obtained by subtracting the average deceleration rate of the tire of interest from the average deceleration rate of the best scoring tire (highest score is best) and dividing that number by the average deceleration rate of the best scoring tire.

*** Analysis showed no statistically significant difference between the Firestone and the General on the Chevrolet Impala; however, there is a statistically significant difference between both of them and the Goodyear in this test.

**** Analysis showed no statistically significant difference between the Firestone and the General on the Ford Police Interceptor; however, there is a statistically significant difference between both of them and the Goodyear in this test.

Table 8 **Results of the high-speed handing test**

Car: 2000 Chevrolet Impala

Tire Size: P225/60R–16

	Average lap time (seconds)	Average speed (mph)	Percent difference*
Firestone Firehawk PV41**	86.925	59.24	0.73%
General XP–2000 V4**	86.940	59.23	0.75%
Goodyear Eagle RS–A**	86.297	59.67	0.00%

Car: 1999 Ford Police Interceptor

Tire Size: P225/60R–16

Firestone Firehawk PV41***	85.200	60.44	0.00%
General XP–2000 V4***	85.593	60.16	0.46%
Goodyear Eagle RS–A***	85.347	60.34	0.17%

* The percent difference is obtained by subtracting the average lap time of the tire of interest from the average lap time of the best scoring tire (lowest score is best) and dividing that number by the average lap time of the best scoring tire.

** Analysis showed no statistically significant difference between the Firestone and the General on the Chevrolet Impala; however, there is a statistically significant difference between both of them and the Goodyear in this test.

*** Analysis showed no statistically significant difference between the Firestone and the Goodyear or the General and the Goodyear on the Ford Police Interceptor; however, there is a statistically significant difference between the Firestone and the General in this test.

Tire Wear Measurement

Objective: Determine each tire's wear characteristics when subjected to the entire performance evaluation. Tread depth measurements are taken of the new right front tire of each test set of each brand, model, and size of tire tested. (New, for the purpose of this evaluation, means after a specific break-in routine, but before any testing.) The right front tire was chosen for these measurements because it typically exhibits the most wear in the test situations used in this evaluation. Tread depth measurements are taken for a second time prior to the final test phase, which is high-speed handling evaluation. Finally, measurements are taken for a third time at the conclusion of the high-speed handling evaluation, which completes the testing.

Methodology: Following a specific tire break-in routine, but before any testing is done, tread depth measurements are taken of the new right front tire of each brand, model, and size of tires tested. The measurements are taken in four places across the tread of the tire, from outside to inside, and in four areas around the circumference of the tire, 90 degrees apart, for a total of at least 16 measurements per right front tire. These same right front tires are once again measured prior to the high-speed handling, and for a third time at the conclusion of the high-speed handling, which is the final test phase, to determine the total amount of tread depth lost during the entire test procedure. The average tread depth total is the average of all of the individual tread depths measured on a given tire. The final score for each tire will be the average tread depth of the right front tire that was worn away during the testing process. Table 9 presents the overall tire wear results.

The tire wear measurements shown in this bulletin resulted from extremely severe operating conditions. As such, they may not be an accurate predictor of achievable tire mileage when used in normal police patrol service, and should not be used to extrapolate actual tire life.

If you would like a copy of the full report, write or call NLECTC, P.O. Box 1160, Rockville, Maryland 20849–1160, 800–248–2742, or 301–519–5060. NLECTC also publishes an annual report on police patrol vehicle testing, which also can be obtained from the technology center.

These publications are also available for viewing online as text or downloading to your computer via NLECTC's Justice Technology Information Network, or JUSTNET, which can be found on the Internet at *www.nlectc.org.* JUSTNET is your information gateway, via the Internet and its World Wide Web, to NLECTC information, products, and services as well as information on other new technologies and equipment available to the law enforcement, corrections, forensics, and criminal justice communities.

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Table 9 **Results of the tire wear measurements**

Car: 2000 Chevrolet Impala
Tire Size: P225/60R–16

	After break-in (inch)	Before handling tests (inch)	After handling tests (inch)	Average wear measured* (inch)	Total treadwear** (percent)
Firestone Firehawk PV41	0.300	0.270	0.227***	0.073	24.33%
General XP–2000 V4	0.304	0.274	0.243***	0.061	20.07%
Goodyear Eagle RS–A	0.311	0.274	0.237***	0.074	23.79%

Car: 1999 Ford Police Interceptor
Tire Size: P225/60R–16

Firestone Firehawk PV41	0.303	0.279	0.238****	0.065	21.45%
General XP–2000 V4	0.302	0.284	0.255****	0.047	15.56%
Goodyear Eagle RS–A	0.314	0.296	0.242****	0.072	22.93%

* To determine the average wear measured, subtract the "after handling tests" tread depth from the "after break-in" tread depth. The resulting figure is the total amount of tread wear experienced during the entire test sequence. Example: 0.317 inch – 0.262 inch = 0.055 inch

** To determine "total treadwear" percent, divide the "average wear measured" figure by the "after-break-in" tread depth.

*** Analysis showed no statistically significant difference between the Firestone and the Goodyear on the Chevrolet Impala; however, there is a statistically significant difference between both of them and the General in this test.

**** Analysis showed statistically significant differences between each of the three tires on the Ford Police Interceptor.

Police Tire Descriptions

The basic construction material used in all the tires was basically the same. The tires were constructed from nylon, polyester, and steel. The tires tested on both the Ford Crown Victoria and the Chevrolet Impala were the Firestone Firehawk PV41, the General XP–2000 V4, and the Goodyear Eagle RS–A. The tire size tested was P225/60R–16. Note: The construction of the Goodyear Eagle RS–A differs slightly between the Ford and Chevrolet. The Firestone and General tires were identical in construction for both vehicles. The following are descriptions of the tires tested:

Firestone Firehawk PV41
P225/60R–16 97V M&S
Tread: 5 plies – 2 plies Polyester/2 plies Steel/1 ply Nylon
Sidewall: 2 plies Polyester
Max Load: 1,609 lbs. (730 kg)
Max Inflation: 44 psi (300 kpa)
U.S. Government mandated ratings:

Treadwear	340
Traction	A
Temperature	A

General XP–2000 V4
P225/60R–16 98V M&S
Tread: 6 plies – 2 Steel/2 Polyester/2 Nylon
Sidewall: 2 plies Polyester
Max Load: 1,653 lbs. (750 kg)
Max Inflation: 44 psi (300 kpa)
U.S. Government mandated ratings:

Treadwear	320
Traction	A
Temperature	A

Goodyear Eagle RS–A (Ford)
P225/60R–16 97V M&S
Tread: 6 plies – 2 Polyester/2 Steel/2 Nylon
Sidewall: 2 plies Polyester
Max Load: 1,609 lbs. (730 kg)
Max Inflation: 44 psi (300 kpa)
U.S. Government mandated ratings:

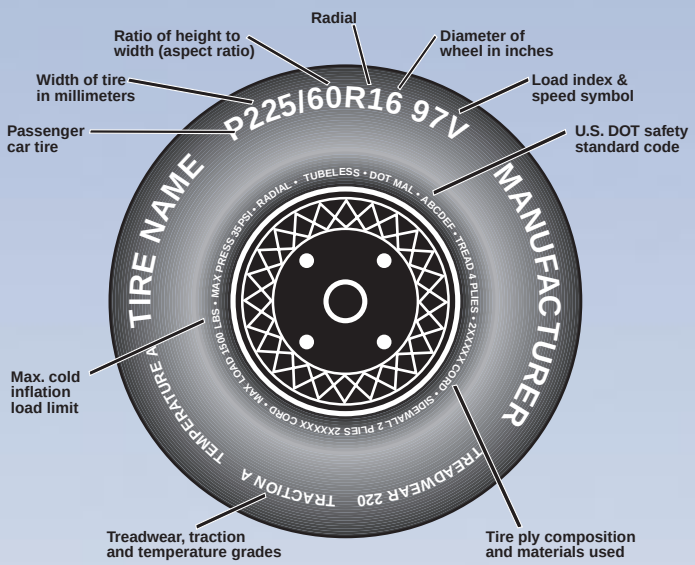
Treadwear	260
Traction	A
Temperature	A

Goodyear Eagle RS–A (Chevrolet)
P225/60R–16 97H M&S
Tread: 5 plies – 2 Polyester/2 Steel/1 Nylon
Sidewall: 2 plies Polyester
Max Load: 1,609 lbs. (730 kg)
Max Inflation: 44 psi (300 kpa)
U.S. Government mandated ratings:

Treadwear	260
Traction	A
Temperature	A

What the Descriptions Mean

TYPICAL PASSENGER TIRE



All tires contain very useful information molded into the sidewall. It shows the name of the tire, its size, whether it is tubeless or tube type, the maximum load and maximum inflation, the important safety warning, and much other information.

Passenger Tires

To assist in interpreting the information presented on page 6, shown here is an artist's rendition of the sidewall of one of the tires evaluated. "P" stands for passenger, "225" represents the width of the tire in millimeters, "60" is the ratio of height to width, "V" is the speed rating, "R" means radial, and "16" is the diameter of the wheel in inches.

Some speed-rated tires carry a Service Description instead of showing the speed symbol in the size designation. The Service Description, 97V in this example, consists of the load index (97) and speed symbol (V).

A "B" in place of the "R" means the tire is belted bias construction. A "D" in place of the "R" means diagonal bias construction.

The maximum load is shown in lbs. (pounds) and in kg (kilograms), and maximum pressure in psi (pounds per square inch) and in kPa (kilopascals). Kilograms and kilopascals are metric units of measurement.

The letters "DOT" certify compliance with all applicable safety standards established by the U.S. Department of Transportation (DOT).

Adjacent to this is a tire identification or serial number. This serial number is a code with up to 11 digits that are a combination of numbers and letters.

The sidewall also shows the type of cord and number of plies in the sidewall and under the tread. DOT requires tire manufacturers to grade passenger car tires based on three performance factors: treadwear, traction, and temperature resistance.

Treadwear

The treadwear grade is a comparative rating based on the wear rate of the tire when tested under controlled conditions on a specified government test track.

A tire graded 200 would wear twice as long on the government test course under specified test conditions as one graded 100.

It is wrong to link treadwear grades with your projected tire mileage. The relative performance of tires depends upon the actual conditions of their use and may vary due to driving habits, service practices, differences in road characteristics, and climate.

Traction

Traction grades, from highest to lowest, are A, B, and C. They represent the tire's ability to stop on wet pavement as measured under controlled conditions on specified government test surfaces of asphalt and concrete.

Temperature

The temperature grades, from highest to lowest, are A, B, and C. These represent the tire's resistance to the generation of heat when tested under controlled conditions on a specified indoor laboratory test wheel.

Source: Tire Industry Safety Council

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The National Institute of Justice is a component of the Office of Justice Programs, which also includes the Bureau of Justice Assistance, Bureau of Justice Statistics, Office of Juvenile Justice and Delinquency Prevention, and Office for Victims of Crime.

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