§ 575.106 Tire fuel efficiency consumer information program.

(a) Scope. This section requires tire manufacturers, tire brand name owners, and tire retailers to provide information indicating the relative performance of replacement passenger car tires in the areas of fuel efficiency, safety, and durability.

(b) Purpose. The purpose of this section is to aid consumers in making better educated choices in the purchase of passenger car tires.

(c) Application. This section applies to replacement passenger car tires. However, this section does not apply to light truck tires, deep tread, wintertype snow tires, space-saver or temporary use spare tires, tires with nominal rim diameters of 12 inches or less, or to limited production tires as defined in §575.104(c)(2). Tire manufacturers may comply with the requirements in this §575.106 as an alternative to complying with the requirements in §575.104(d)(1)(I)(A) and (B).

(d) Definitions.—(1) All terms used in this section that are defined in Section 32101 of Title 49, United States Code, are used as defined therein.

(2) As used in this section:
Brand name owner means a person, other than a tire manufacturer, who owns or has the right to control the brand name of a tire or a person who licenses another to purchase tires from a tire manufacturer bearing the licensor’s brand name.

CT means a pneumatic tire with an inverted flange tire and rim system in which the rim is designed with rim
flanges pointed radially inward and the tire is designed to fit on the underside of the rim in a manner that encloses the rim flanges inside the air cavity of the tire.

Dealer means a person selling and distributing new motor vehicles or motor vehicle equipment primarily to purchasers that in good faith purchase the vehicle or equipment other than for resale.

Distributor means a person primarily selling and distributing motor vehicles or motor vehicle equipment for resale.

Lab alignment tires or LATs means the reference tires which the reference lab will test to be used to align other rolling resistance machines with the reference lab in accordance with the machine alignment procedure in ISO 28580 (incorporated by reference, see §575.3), section 10.

Light truck (LT) tire means a tire designated by its manufacturer as primarily intended for use on lightweight trucks or multipurpose passenger vehicles.

Manufacturer means a person manufacturing or assembling motor vehicles or motor vehicle equipment, or importing motor vehicles or motor vehicle equipment for resale. This term includes any parent corporation, any subsidiary or affiliate, and any subsidiary or affiliate of a parent corporation of such a person.

Passenger car tire means a tire intended for use on passenger cars, multipurpose passenger vehicles, and trucks, that have a gross vehicle weight rating (GVWR) of 10,000 pounds or less.

Reference lab means the laboratory or laboratories that the National Highway Traffic Safety Administration designates and which maintains and operates a rolling resistance test machine to test LATs for rolling resistance so that other testing laboratories may correlate the results from its rolling resistance test machine in accordance with the machine alignment procedure in ISO 28580 (incorporated by reference, see §575.3), section 10.

Replacement passenger car tire means any passenger car tire offered for sale to consumers, other than a passenger car tire sold as original equipment on a new vehicle.

Size designation means the alpha-numeric designation assigned by a manufacturer that identifies a tire’s size. This can include identifications of tire class, nominal width, aspect ratio, tire construction, and wheel diameter.

Stock keeping unit or SKU means the alpha-numeric designation assigned by a manufacturer to uniquely identify a tire product. This term is sometimes referred to as a product code, a product identifier, or a part number.

Tire line means the entire name used by a tire manufacturer to designate a tire product including all prefixes and suffixes as they appear on the sidewall of a tire.

Tire retailer means a dealer or distributor of new replacement passenger car tires sold for use on passenger cars, multipurpose passenger vehicles, and trucks, that have a gross vehicle weight rating (GVWR) of 10,000 pounds or less.

(e) Requirements.—(1) Information. (i) Requirements for tire manufacturers. Subject to paragraph (e)(1)(iii) of this section, each manufacturer of tires, or in the case of tires marketed under a brand name, each brand name owner shall provide rating information for each tire of which it is the manufacturer or brand name owner in the manner set forth in paragraphs (e)(1)(i)(A) through (C) of this section. The ratings for each tire shall be only those specified in paragraph (e)(2) of this section. For the purposes of this section, each tire of a different SKU is to be rated separately. Each tire shall be able to achieve the level of performance represented by each rating.

(A) Ratings. Each tire shall be rated with the words, letters, symbols, and figures specified in paragraph (e)(2) of this section.

(B) Tire label. [Reserved]

(C) Reporting requirements. The information collection requirements contained in this section have been approved by the Office of Management and Budget under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 et seq.) and are awaiting an assigned OMB Control Number.

(1) Subject to paragraph (e)(1)(iii) of this section, manufacturers of tires or, in the case of tires marketed under a brand name, brand name owners of
(e) Reporting requirements.

(1) Manufacturer or brand name owner.

(i) Each manufacturer of tires or, in the case of tires marketed under a brand name, brand name owner of tires subject to this section shall submit to NHTSA all tire lines, size designations, and stock keeping units for deep tread, winter-type snow tires and limited production tires that are exempt from this section.

(ii) Where a manufacturer or brand name owner is required to report ratings under this section, the information required in paragraph (e)(1)(i)(C)(i) of this section may be submitted with the ratings information reported in accordance with paragraph (e)(1)(i)(C)(1) of this section.

(iii) Where a tire manufacturer or, in the case of tires marketed under a brand name, brand name owner only manufactures tires that are exempt from this section under paragraph (c) of this section, that manufacturer or brand name owner shall submit a statement listing the information specified in paragraph (e)(1)(i)(C)(3)(i) of this section and certifying that none of the tires it manufactures are required to be rated under this section.

(4) New ratings information.

(i) Whenever a tire manufacturer or, in the case of tires marketed under a brand name, a brand name owner introduces a new tire for sale, the tire manufacturer or brand name owner shall submit either the information required under paragraph (e)(1)(i)(C)(1) of this section or the information required under paragraph (e)(1)(i)(C)(3) of this section for the tire to NHTSA on or before the date 30 calendar days before the tire is first introduced for sale.

(ii) Whenever a tire manufacturer or, in the case of tires marketed under a brand name, a brand name owner makes a design change to a tire that would result in new or different information required under either paragraph (e)(1)(i)(C)(1) or paragraph (e)(1)(i)(C)(3) of this section, the tire manufacturer or brand name owner shall submit the new or different information to NHTSA on or before the date 30 calendar days before the redesigned tire is first introduced for sale.

(iii) Whenever a tire manufacturer or, in the case of tires marketed under a brand name, a brand name owner receives information that would determine new or different information required under either paragraph (e)(1)(i)(C)(1) or paragraph (e)(1)(i)(C)(3) of this section for a tire, the tire manufacturer or brand name owner shall submit the new or different information to NHTSA on or before the date 120 calendar days after the receipt of the new information by the tire manufacturer or brand name owner.

(5) Voluntary submission of data. Manufacturers of tires or, in the case of tires marketed under a brand name, brand name owners of tires not subject to this section may submit to NHTSA data meeting the requirements of paragraphs (e)(1) and (2) of this section for any tire they wish to have included in the database of information available to consumers on NHTSA’s Web site.

(ii) Requirements for tire retailers. Subject to paragraph (e)(1)(ii) of this section, each tire retailer shall provide rating information for each passenger car tire offered for sale in the manner set forth in this section.

(iii) Date for compliance. The requirements of paragraphs (e)(1)(i) and (e)(1)(ii) of this section will be implemented as indicated in a forthcoming final rule. These dates will be announced in the Federal Register.

(2) Performance.—(i) Fuel efficiency.

(ii) Traction.

(iii) Treadwear.

(f) Fuel efficiency rating conditions and procedures.

(1) Conditions.

(i) Measurement of rolling resistance force under the test procedure specified in paragraph (f)(2) of this section shall be made using either the force or the torque method.

(ii) The test procedure specified in paragraph (f)(2) of this section shall be carried out on an 80-grit roadwheel surface.

(iii) The machine alignment procedure specified in section 10 of the test procedure specified in paragraph (f)(2) of this section shall be conducted using pairs of the LATs specified in paragraph (f)(1)(iv) of this section, and tested by the reference lab.

(iv) Lab alignment tires. The LATs to be used in the machine alignment procedure in section 10 of the test procedure specified in paragraph (f)(2) of this section will be specified in this section in a forthcoming final rule.

(v) Break-in procedure for bias ply tires. Before starting the rolling resistance testing under the test procedure specified in paragraph (f)(2) of this section on a bias ply replacement passenger car tire, the tire shall be broken in by running it for one (1) hour with the speed, loading, and inflation pressure as specified in paragraphs (f)(1)(v)(A), (f)(1)(v)(B), and (f)(1)(v)(C) of this section. After the one hour break-in, allow the tire to cool for two (2) hours and re-adjust to the required ISO 28580 (incorporated by reference, see §575.3) test inflation pressure, and verify 10 minutes after the adjustment is made. After break-in, the bias ply tire should follow the 30 minute warm-up procedure of ISO 28580 (incorporated by reference, see §575.3).

(A) Speed. The speed shall be 80 kilometer per hour (kph).

(B) Loading. The tire loading shall be 80 percent of the maximum tire load capacity.

(C) Inflation pressure. The inflation pressure shall be 230 kilopascals (kPa) for standard load tires, or 250 kPa for reinforced or extra load tires.

(2) Procedure. The test procedure shall be as specified in ISO 28580 (incorporated by reference, see §575.3), except that the conditions specified in paragraph (f)(1) of this section shall be used.

(g) Traction rating conditions and procedures.

(1) Conditions. Test conditions are as specified in §575.104(f)(1), subject to the changes in paragraphs (g)(1)(i) through (g)(1)(iii) of this section to additionally measure the peak coefficient of friction.

(i) The sampling rate of the data acquisition is to be no less than 100 Hertz in accordance with Section 6.6.1.8 of ASTM E 1337 (incorporated by reference, see §575.3).

(ii) The rate of brake application shall be sufficient to control the time interval between initial brake application and peak longitudinal force to be between 0.3 and 0.5 seconds, and shall be determined in accordance with Section 6.3.2 of ASTM E 1337 (incorporated by reference, see §575.3).

(iii) The peak coefficient of friction (or peak braking coefficient) shall be determined in accordance with Section 12 of ASTM E 1337 (incorporated by reference, see §575.3) for each dataset.

(iv) The slide coefficient of friction will be determined in accordance with §575.104(f)(2)(iii).

(2) Procedure. (i) Prepare two standard tires as specified in §575.104(f)(2)(i).

(ii) Mount the tires on the test apparatus described in §575.104(f)(1)(iv) and load each tire to 1,085 pounds.

(iii) Tow the trailer on the asphalt test surface specified in §575.104(f)(1)(i) at a speed of 40 mph, lock one trailer wheel, and record the slide and peak coefficient of friction on the tire associated with that wheel.

(iv) Repeat the test on the concrete surface, locking the same wheel.
(v) Repeat the tests specified in paragraphs (g)(2)(iii) and (iv) of this section for a total of 10 measurements on each test surface.

(vi) Repeat the procedures specified in paragraphs (g)(2)(iii) through (v) of this section, locking the wheel associated with the other standard tire.

(vii) Average the 20 measurements taken on the asphalt surface to find the standard tire average peak coefficient of friction for the asphalt surface. Average the 20 measurements taken on the concrete surface to find the standard tire average peak coefficient of friction for the concrete surface. The standard tire average peak coefficient of friction so determined may be used in the computation of adjusted peak coefficients of friction for more than one candidate tire.

(viii) Average the 20 measurements taken on the asphalt surface to find the standard tire average slide coefficient of friction for the asphalt surface. Average the 20 measurements taken on the concrete surface to find the standard tire average slide coefficient of friction for the concrete surface. The standard tire average slide coefficient of friction so determined may be used in the computation of adjusted slide coefficients of friction for more than one candidate tire.

(ix) Prepare two candidate tires of the same SKU in accordance with paragraph (g)(2)(i) of this section, mount them on the test apparatus, and test one of them according to the procedures of paragraphs (g)(2)(ii) through (v) of this section, except load each tire to 85 percent of the test load specified in §575.104(h). For CT tires, the test inflation of candidate tires shall be 230 kPa. Candidate tire measurements may be taken either before or after the standard tire measurements used to compute the standard tire traction coefficient. Take all standard tire and candidate tire measurements used in computation of a candidate tire’s adjusted peak coefficient and adjusted slide coefficient of friction within a single three-hour period. Average the 10 measurements taken on the asphalt surface to find the candidate tire average peak coefficient and average slide coefficient of friction for the asphalt surface. Average the 10 measurements taken on the concrete surface to find the candidate tire average peak coefficient of friction for the concrete surface. Average the 10 measurements taken on the concrete surface to find the candidate tire average slide coefficient of friction for the concrete surface.

(x) Repeat the procedures specified in paragraph (g)(2)(viii) of this section, using the second candidate tire as the tire being tested.

(h) Treadwear rating conditions and procedures.—(1) Conditions. Test conditions are as specified in §575.104(e)(1).

(2) Procedure. Test procedure is as specified in §575.104(e)(2).