F2493-18 Updates

P225/60R16 SRTT

F2493 Updates (P225/60R16 SRTT)

- Version F2493-18 published in February 2018
- 5 revisions included in this version:
 - Rubber Manufacturers Association (RMA) changed to US Tire Manufacturers
 Association (USTMA)
 - Max pressure marking on sidewall changed from 240 kPa (35 psi) to 300 kPa (44 psi) to accommodate request from ETRTO (facilitates use of this tire as reference for ISO 19447 Ice Grip) → First build with this change planned for 3Q2018
 - Tread compound physical properties updated in Table 1 (they were never updated in 2009 when Michelin reformulated all tread compounds to remove aromatic oils)
 - New Figure 3 to accurately reflect Rotation Arrow marking on sidewall
 - Updated Figure 4 to correctly show tread depth

F2493 Updates (Table 1)

<u>Old</u> <u>New</u>

TABLE 1 Physical Properties of Tread Compound

Tensile sheet cure, min at 320°F (160°C) Stress at 300 % elongation, psi (MPa) Tensile strength, min psi (MPa) Elongation, min % Durometer hardness^A 15.0 min 2250 psi (4.9 ± 0.4 MPa) 2250 psi (15.5 MPa) 650 % min 64 ± 2 Type A

TABLE 1 Physical Properties of Tread Compound

Tensile sheet cure, min at 320°F (160°C)

Stress at 300 % elongation, psi (MPa)

Tensile strength, min psi (MPa)

Elongation, min %

Durometer hardness^A

15.0 min

942 ± 150 psi (6.5 ± 1.0 MPa)

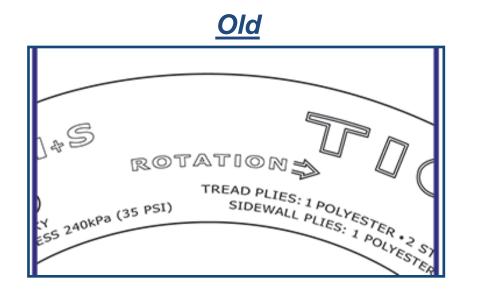
2250 psi (15.5 MPa)

550 % min

64 ± 2 Type A

- The F2493 standard was first published in 2006.
- The tread compound formulation was changed in 2009 when Michelin reformulated all rubber products to remove aromatic oils.
- At that time, performance of the F2493 SRTT with the NAO tread formulation was verified as equivalent to the F2493 SRTT with the previous tread formulation.
- The Table 1 values should have been updated when the tread compound was reformulated in 2009; this did not occur.
- Some Table 1 values are updated in the "-18" revision so that the standard agrees with the way the tread compound has been made since 2009.
- The tread formulation for F2493 <u>has not changed</u> since 2009.

F2493 Updates (Figure 3)





F2493 Updates (Figure 4)

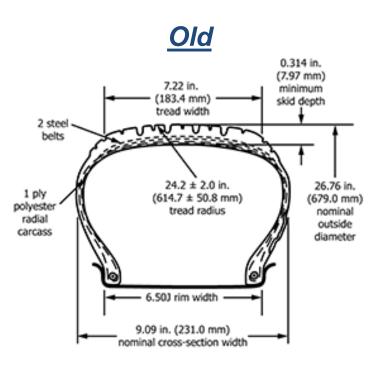


FIG. 4 Tire Cross Section

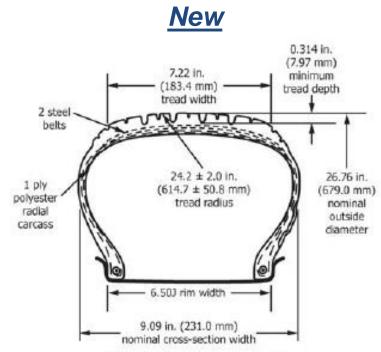


FIG. 4 Tire Cross Section