

§ 1512.17

reflecting material shall meet the following requirements:

(1) The retroreflective material shall form a continuous circle on the sidewall.

(2) The retroreflective material shall adhere to the tire such that after the tire has been subjected to a temperature of $50^{\circ} \pm 3^{\circ} \text{C}$ ($122^{\circ} \pm 5.4^{\circ} \text{F}$) for 30 minutes, the retroreflective material cannot be peeled or scraped away without removal of tire material.

(3) The retroreflective material shall be as resistant to abrasion as is the adjacent sidewall material so that when retroreflective material is removed from the inflated tire by abrasion with a wet, steel bristle brush, tire material will be removed along with the retroreflective material.

(4) The retroreflective material shall be tested for performance in accordance with the retroreflective tire test, §1512.18(o), to assure the reflectance properties over the angles given in table 3. When a portion of the retroreflective material is selected (and the remainder is masked as specified in §1512.18(o)(2)(i)), the selected portion shall not contact the ground plane when the assembled bicycle is resting on that plane in any orientation.

(i) *Retroreflective rims.* When retroreflective rims are used in lieu of spoke-mounted reflectors or retroreflective tire sidewalls, the reflecting material shall meet the following requirements:

(1) The retroreflective material shall form a continuous circle on the rim.

(2) If the retroreflective material is applied to the rim in the form of a self-adhesive tape, the following requirement must be met: Use a sharp knife, razor blade, or similar instrument to carefully release an end of the tape material sufficient to be grasped between the thumb and finger. Grasp the freed tape end and gradually pull in a direction 90° to the plane of the rim. The tape material must break before additional separation (peeling) from the rim is observed.

(3) After the retroreflective material is abraded in accordance with the abrasion test for retroreflective rims at §1512.18(r), the rim must then be tested for performance in accordance with the retroreflective tire and rim test at

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§1512.18(o), to assure the reflectance properties over the angles given in table 3.

[43 FR 60034, Dec. 22, 1978, as amended at 45 FR 82627, 82628, Dec. 16, 1980]

§ 1512.17 Other requirements.

(a) *Road test.* Bicycles, other than sidewalk bicycles, shall be ridden at least 6.4 km (4.0 mi.) by a rider weighing at least 68.1kg (150 lb.) and travel five times over a 30.5 m (100 ft.) cleated course in accordance with the road test, §1512.18(p), and shall exhibit stable handling, turning, and steering characteristics without difficulty of operation. There shall be no system or component failure of the structure, brakes, or tires, and there shall be no loosening or misalignment of the seat, handlebars, controls, or reflectors during or resulting from this test.

(b) *Sidewalk bicycle proof test.* Sidewalk bicycles shall be dropped a distance of at least 300 mm (1.0 ft.) three times onto a paved surface with weights attached in accordance with the sidewalk bicycle proof test, §1512.18(q). There shall be no fracture of wheels, frame, seat, handlebars, or fork during or resulting from this test.

(c) *Ground clearance.* With the pedal horizontal and the pedal crank in its lowest position and any training wheels removed, it shall be possible to tilt the bicycle at least 25° from the vertical without the pedal or any other part (other than tires) contacting the ground plane.

(d) *Toe clearance.* Bicycles not equipped with positive foot-retaining devices (such as toe clips) shall have at least 89 mm ($3\frac{1}{2}$ in) clearance between the pedal and the front tire or fender (when turned to any position). The clearance shall be measured forward and parallel to the longitudinal axis of the bicycle from the center of either pedal to the arc swept by the tire or fender, whichever results in the least clearance. (See figure 6 of this part 1512.)

§ 1512.18 Tests and test procedures.

(a) *Sharp edge test.* [Reserved]

(b) [Reserved]

(c) *Protective cap and end-mounted devices test.* (Ref. §1512.4(i), §1512.6(d).)