

Standard No. 212 - Windshield Mounting

§ 571.212

S1. *Scope.* This standard establishes windshield retention requirements for motor vehicles during crashes.

S2. *Purpose.* The purpose of this standard is to reduce crash injuries and fatalities by providing for retention of the vehicle windshield during a crash, thereby utilizing fully the penetration-resistance and injury-avoidance properties of the windshield glazing material and preventing the ejection of occupants from the vehicle.

S3. *Application.* This standard applies to passenger cars, and to multipurpose passenger vehicles, trucks, and buses having a gross vehicle weight rating of 4536 kilograms or less. However, it does not apply to forward control vehicles, walk-in van-type vehicles, or to open-body type vehicles with fold-down or removable windshields.

S4. *Definition.* *Passive restraint system* means a system meeting the occupant crash protection requirements of S5. of Standard No. 208 by means that require no action by vehicle occupants.

S5. *Requirements.* When the vehicle travelling longitudinally forward at any speed up to and including 48 kilometers per hour impacts a fixed collision barrier that is perpendicular to the line of travel of the vehicle, under the conditions of S6, the windshield mounting of the vehicle shall retain not less than the minimum portion of the windshield periphery specified in S5.1 and S5.2.

S5.1 *Vehicles equipped with passive restraints.* Vehicles equipped with passive restraint systems shall retain not less than 50 percent of the portion of the windshield periphery on each side of the vehicle longitudinal centerline.

S5.2 *Vehicles not equipped with passive restraints.* Vehicles not equipped with passive restraint systems shall retain not less than 75 percent of the windshield periphery.

S6. *Test conditions.* The requirements of S5. shall be met under the following conditions:

S6.1 The vehicle, including test devices and instrumentation, is loaded as follows:

(a) Except as specified in S6.2, a passenger car is loaded to its unloaded vehicle weight plus its cargo and luggage capacity weight, secured in the luggage area, plus a 50th-percentile test dummy as specified in part 572 of this chapter at each front outboard designated seating position and at any other position whose protection system is required to be tested by a dummy under the provisions of Standard No. 208. Each dummy is restrained only by means that are installed for protection at its seating position.

(b) Except as specified in S6.2, a multipurpose passenger vehicle, truck or bus is loaded to its unloaded vehicle weight, plus 136 kilograms or its rated cargo and luggage capacity, whichever is less, secured to the vehicle, plus a 50th-percentile test dummy as specified in part 572 of this chapter at each front outboard designated seating position and at any other position whose protection system is required to be tested by a dummy under the provisions of Standard No. 208. Each dummy is restrained only by means that are installed for protection at its seating position. The load is distributed so that the weight on each axle as measured at the tire-ground interface is in proportion to its GAWR. If the weight on any axle when the vehicle is loaded to its unloaded vehicle weight plus dummy weight exceeds the axle's proportional share of the test weight, the remaining weight is placed so that the weight on that axle remains the same. For the purposes of this section, unloaded vehicle weight does not include the weight of work-performing accessories. Vehicles are tested to a maximum unloaded vehicle weight of 2,495 kilograms.

S6.2 The fuel tank is filled to any level from 90 to 95 percent of capacity.

S6.3 The parking brake is disengaged and the transmission is in neutral.

S6.4 Tires are inflated to the vehicle manufacturer's specifications. S6.5 The windshield mounting material and all vehicle components in direct contact with the mounting material are at any temperature between -9 degrees Celsius and +43 degrees Celsius.

Reference:

Code of Federal Regulations

Title 49 – Transportation.

Subtitle B - Other Regulations Relating to Transportation (Continued).

Chapter V - National Highway Traffic Safety Administration, Department of Transportation.

Part 571 - Federal Motor Vehicle Safety Standards.