

and shall represent the maximum dynamic movement of the upper end of the steering column and shaft during the crash test.

S5. *Test conditions.* The requirements of S4 shall be met when the vehicle is tested in accordance with the following conditions.

S5.1 The vehicle, including test devices and instrumentation, is loaded to its unloaded vehicle weight.

S5.2 Adjustable steering controls are adjusted so that a tilting steering wheel hub is at the geometric center of the locus it describes when it is moved through its full range of driving positions. A telescoping steering control is set at the adjustment position midway between the forwardmost and rearwardmost position.

S5.3 Convertibles and open-body type vehicles have the top, if any, in place in the closed passenger compartment configuration.

S5.4 Doors are fully closed and latched but not locked.

S5.5 The fuel tank is filled to any level from 90 to 95 percent of capacity.

S5.6 The parking brake is disengaged and the transmission is in neutral.

S5.7 Tires are inflated to the vehicle manufacturer's specifications.

[52 FR 44897, Nov. 23, 1987, as amended at 63 FR 28935, May 27, 1998; 63 FR 51003, Sept. 24, 1998]

§ 571.205 Standard No. 205, Glazing materials.

S1. *Scope.* This standard specifies requirements for glazing materials for use in motor vehicles and motor vehicle equipment.

S2. *Purpose.* The purpose of this standard is to reduce injuries resulting from impact to glazing surfaces, to ensure a necessary degree of transparency in motor vehicle windows for driver visibility, and to minimize the possibility of occupants being thrown through the vehicle windows in collisions.

S3. *Application and Incorporation by Reference.*

S3.1 *Application.*

(a) This standard applies to passenger cars, multipurpose passenger vehicles, trucks, buses, motorcycles, slide-in campers, pickup covers designed to

carry persons while in motion and low speed vehicles, and to glazing materials for use in those vehicles.

(b) For glazing materials manufactured before September 1, 2006, and for motor vehicles, slide-in campers and pickup covers designed to carry persons while in motion, manufactured before November 1, 2006, the manufacturer may, at its option, comply with 49 CFR 571.205(a) of this section.

S3.2 *Incorporation by Reference.*

(a) "American National Standard for Safety Glazing Materials for Glazing Motor Vehicles and Motor Vehicle Equipment Operating on Land Highways-Safety Standard" ANSI/SAE Z26.1-1996, Approved by American National Standards Institute August 11, 1997 (ANSI/SAE Z26.1-1996) is incorporated by reference in Section 5.1 and is hereby made part of this Standard. The Director of the Federal Register approved the material incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51 (see § 571.5 of this part). A copy of ANSI/SAE Z26.1-1996 may be obtained from the Society of Automotive Engineers, Inc., 400 Commonwealth Drive, Warrendale, PA 15096-0007. A copy of ANSI/SAE Z26.1-1996 may be inspected at NHTSA's technical reference library, 400 Seventh Street, SW., Room 5109, Washington, DC or at the Office of the Federal Register, 900 North Capitol Street, NW., Suite 700, Washington, DC.

(b) The Society of Automotive Engineers (SAE) Recommended Practice J673, revised April 1993, "Automotive Safety Glasses" (SAE J673, rev. April 93) is incorporated by reference in Section S5.1, and is hereby made part of this Standard. The Director of the Federal Register approved the material incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51 (see § 571.5 of this part). A copy of SAE J673, rev. April 93 may be obtained from SAE at the Society of Automotive Engineers, Inc., 400 Commonwealth Drive, Warrendale, PA 15096. A copy of SAE J673, rev. April 93 may be inspected at NHTSA's technical reference library, 400 Seventh Street, SW., Room 5109, Washington, DC, or at the Office of the Federal Register, 900 North Capitol Street, NW., Suite 700, Washington, DC.

(c) The Society of Automotive Engineers (SAE) Recommended Practice J100, revised June 1995, "Class 'A' Vehicle Glazing Shade Bands" (SAE J100, rev. June 95) is incorporated by reference in Section S5.3, and is hereby made part of this Standard. The Director of the Federal Register approved the material incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51 (see §571.5 of this part). A copy of SAE J100, rev. June 95 may be obtained from SAE at the Society of Automotive Engineers, Inc., 400 Commonwealth Drive, Warrendale, PA 15096. A copy of SAE J100, rev. 95 may be inspected at NHTSA's technical reference library, 400 Seventh Street, SW., Room 5109, Washington, DC, or at the Office of the Federal Register, 900 North Capitol Street, NW., Suite 700, Washington, DC.

S4. Definitions.

Bullet resistant shield means a shield or barrier that is installed completely inside a motor vehicle behind and separate from glazing materials that independently comply with the requirements of this standard.

Camper means a structure designed to be mounted in the cargo area of a truck, or attached to an incomplete vehicle with motive power, for the purpose of providing shelter for persons.

Glass-plastic glazing material means a laminate of one or more layers of glass and one or more layers of plastic in which a plastic surface of the glazing faces inward when the glazing is installed in a vehicle.

Pickup cover means a camper having a roof and sides but without a floor, designed to be mounted on and removable from the cargo area of a truck by the user.

Prime glazing manufacturer means a manufacturer that fabricates, laminates, or tempers glazing materials.

Slide-in camper means a camper having a roof, floor, and sides, designed to be mounted on and removable from the cargo area of a truck by the user.

S5. Requirements.

S5.1 Glazing materials for use in motor vehicles must conform to ANSI/SAE Z26.1–1996 unless this standard provides otherwise.

S5.1.1 *Multipurpose passenger vehicles*. Except as otherwise specifically

provided by this standard, glazing for use in multipurpose passenger vehicles shall conform to the requirements for glazing for use in trucks as specified in ANSI/SAE Z26.1–1996.

S5.1.2 *Aftermarket replacement glazing*. Glazing intended for aftermarket replacement is required to meet the requirements of this standard or the requirements of 49 CFR 571.205(a) applicable to the glazing being replaced.

S5.1.3 *Location of arrow within "AS" markings*. In ANSI/SAE Z26.1–1996 (August 11, 1997) Section 7, "Marking of Safety Glazing Materials," on page 33, in the right column, in the first complete sentence, the example markings "AS↓1", "AS↓14" and "AS↑2" are corrected to read "A↓S1", "A↓S14" and "A↑S2". Note that the arrow indicating the portion of the material that complies with Test 2 is placed with its base adjacent to a horizontal line.

S5.2 Each of the test specimens described in ANSI/SAE Z26.1–1996 Section 5.7 (fracture test) must meet the fracture test requirements of that section when tested in accordance with the test procedure set forth in that section.

S5.3 *Shade Bands*. Shade band areas for windshields shall comply with the requirements of either S5.3.1 or S5.3.2.

S5.3.1 Shade bands for windshields shall comply with SAE J100 JUNE 1995.

S5.3.2 Except as provided in S5.3.2.1, the lower boundary of shade bands for windshields shall be a plane inclined upwards from the X axis of the vehicle at 7 degrees, passing through point V₁, and parallel to the Y axis. The coordinate system and point V₁ shall be as specified in Annexes 18 and 19 of European Commission for Europe (ECE) Regulation No. 43 Revision 2—Amendment 1.

S5.3.2.1 In the area 300 mm wide centered on the intersection of the windshield surface and longitudinal vertical median plane of the vehicle, the lower boundary of shade bands for windshields shall be a plane inclined upwards from the X axis of the vehicle at 3 degrees, passing through point V₁, and parallel to the Y axis.

S5.4 *Low speed vehicles*. Windshields of low speed vehicles must meet the ANSI/SAE Z26.1–1996 specifications for either AS–1 or AS–4 glazing.

S5.5 Item 4A Glazing. Item 4A glazing may be used in all areas in which Item 4 safety glazing may be used, and also for side windows rearward of the "C" pillar. I.e., Item 4A glazing may be used under Item 4A paragraph (b) of ANSI/SAE Z26.1-1996 only in side windows rearward of the "C" pillar.

S6. *Certification and marking.*

S6.1 A prime glazing material manufacturer must certify, in accordance with 49 U.S.C. 30115, each piece of glazing material to which this standard applies that is designed—

(a) As a component of any specific motor vehicle or camper; or

(b) To be cut into components for use in motor vehicles or items of motor vehicle equipment.

S6.2 A prime glazing manufacturer certifies its glazing by adding to the marks required by section 7 of ANSI/SAE Z26.1-1996, in letters and numerals of the same size, the symbol "DOT" and a manufacturer's code mark that NHTSA assigns to the manufacturer. NHTSA will assign a code mark to a manufacturer after the manufacturer submits a written request to the Office of Vehicle Safety Compliance, National Highway Traffic Safety Administration, 400 Seventh Street, SW., Washington, DC 20590. The request must include the company name, address, and a statement from the manufacturer certifying its status as a prime glazing manufacturer as defined in S4.

S6.3 A manufacturer or distributor who cuts a section of glazing material to which this standard applies, for use in a motor vehicle or camper, must—

(a) Mark that material in accordance with section 7 of ANSI/SAE Z26.1-1996; and

(b) Certify that its product complies with this standard in accordance with 49 U.S.C. 30115.

[37 FR 12239, June 21, 1972]

EDITORIAL NOTE: For FEDERAL REGISTER citations affecting § 571.205 see the List of CFR Sections Affected which appears in the Finding Aids section of the printed volume and on GPO Access.

§ 571.205(a) Glazing equipment manufactured before September 1, 2006 and glazing materials used in vehicles manufactured before November 1, 2006.

S1. *Scope.* This standard specifies requirements for glazing equipment manufactured before September 1, 2006 for use in motor vehicles and motor vehicle equipment, and specifies requirements for motor vehicles manufactured before November 1, 2006 and for replacement glazing for those vehicles. A manufacturer may, at its option, comply with 49 CFR 571.205 instead of this standard.

S2. *Purpose.* The purpose of this standard is to reduce injuries resulting from impact to glazing surfaces, to ensure a necessary degree of transparency in motor vehicle windows for driver visibility, and to minimize the possibility of occupants being thrown through the vehicle windows in collisions.

S3. *Application.* This standard applies to glazing equipment manufactured before September 1, 2006 for use in motor vehicles and motor vehicle equipment. In addition, this standard applies to the following vehicles manufactured before November 1, 2006: passenger cars, low speed vehicles, multipurpose passenger vehicles, trucks, buses, and motorcycles. This standard also applies to slide-in campers, and pickup covers designed to carry persons while in motion, manufactured before November 1, 2006.

S4. *Definitions*

Bullet resistant shield means a shield or barrier that is installed completely inside a motor vehicle behind and separate from glazing materials that independently comply with the requirements of this standard.

Camper means a structure designed to be mounted in the cargo area of a truck, or attached to an incomplete vehicle with motive power, for the purpose of providing shelter for persons.

Glass-plastic glazing material means a laminate of one or more layers of glass and one or more layers of plastic in which a plastic surface of the glazing faces inward when the glazing is installed in a vehicle.