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Safety Glazing Materials—Motor Vehicles—SAE J674a

SAE Recommended Practice
Last Revised June 1976

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SAFETY GLAZING MATERIALS—MOTOR VEHICLES—SAE J674a

SAE Recommended Practice

Report of Passenger Car and Body Division approved March 1923 and last revised by Body Engineering Committee June 1976.

(With the development of what is commonly termed "safety glass," the diversity in claims for its manufacture and use and its requirement for Federal and State motor vehicle laws or regulations led to the organization of a Sectional Committee in June, 1934, under the American Standards Association procedure to formulate a standard safety code for all safety glass. The first code developed under this procedure related to land motor vehicles only, and a Safety Glass Advisory Committee of the Society was appointed under the Passenger Car Division which cooperated with the Sectional Committee in developing the original American Tentative Standard, ASA Z26.1-1935. This was subsequently revised, ASA Z26.1-1938, with reference to trade marking of the glass, and again later to include test requirements for other safety glazing materials, ASA Z26.1-1950. The standard was revised in 1966 and is now titled ANSI Z26.1-1966 (R-1973). Z26.1a-1969 (R-1973) also supplements this standard. This SAE Recommended Practice is intended primarily as a guide to the proper selection of safety glazing materials for use in land motor vehicles.)

1. Scope—All glazing materials used in motor vehicles operating on land highways should comply with the requirements of the American National Standard ANSI Z26.1-1966 (R-1973), Safety Code for Safety Glazing Materials for Glazing Motor Vehicles Operating on Land Highways, including its supplement ANSI Z26.1a-1969 (R-1973) or subsequent revisions. This is referred to hereafter as "the safety code."

2. Definitions—The term "safety glazing materials" means glazing materials so constructed, treated, or combined with other materials as to reduce, in comparison with ordinary sheet, plate, or float glass, the likelihood of injury to persons as a result of contact with these safety glazing materials whether they may be broken or unbroken.

2.1 Safety Glass—Any safety glazing material predominantly ceramic in character, and which meets the appropriate requirements of the safety code including (but not limited to) laminated glass, tempered glass, and wired glass.

2.1.1 LAMINATED SAFETY GLASS—Two or more pieces of sheet, plate, or float glass bonded together by an intervening layer or layers of plastic material. It will crack and break under sufficient impact, but the pieces of glass tend to adhere to the plastic. If a hole is produced, the edges are likely to be less jagged than would be the case with ordinary annealed glass.

2.1.2 TEMPERED SAFETY GLASS—(Other terms such as "heat treated glass," "heat toughened glass," "case hardened glass," and "chemically tempered glass" also are used). A single piece of specially treated sheet, plate, or float glass possessing substantial mechanical strength. When broken at any point, the entire piece breaks into small pieces, which have relatively dull edges as compared to ordinary annealed glass.

2.1.3 WIRED SAFETY GLASS—A single piece of glass with a layer of meshed wire completely imbedded in the glass but not necessarily in the center of the glass.

2.2 Safety Glazing Plastics—Any safety glazing materials, predominantly synthetic organic in character which meet the appropriate requirements of the safety code, including single pieces and laminated products whether rigid or flexible.

3. Use of Descriptive Terms—As the definition indicates, safety glazing materials, in comparison with ordinary sheet glass, plate glass, or float glass, are intended to reduce the likelihood of the injury or the severity of injury in the event of their breakage. Therefore, terms such as "nonbreakable," "nonshatterable," "nonscatterable," "nonsplinterable" should not be interpreted by the driving public as meaning that absolute protection is afforded to the occupants of the vehicle by the safety glazing materials so described, as the descriptive terms might seem to warrant. No such terms are used in the Safety Code.

4. Degree of Safety—One safety glazing material may be superior for protection against one type of hazard while another may be superior against another type. Since accident conditions are not standardized, no one type of safety glazing material can be shown to possess the maximum degree of safety under all conditions against all conceivable hazards.

NOTE: See SAE Recommended Practice, Automotive Safety Glazing—SAE J673.

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