SAE International™

SURFACE VEHICLE RECOMMENDED PRACTICE

SAE J674

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(R) Safety Glazing Materials—Motor Vehicles and Motor Vehicle Equipment

Foreword

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 Association was appointed under the Passenger Car Division which cooperated with the Sectional Committee in developing the original American Tentative Standard, ASA Z-26.1-1935. This was subsequently revised, ASA Z-26.1-1938, with reference to trade marking of the glass, and again later to include test requirements for other safety glazing materials, ASA Z-26.1-1950. The standard was modified in 1966 to the extent necessary to include synthetic plastic materials along with glass under the general term of “safety glazing materials,” ANSI/SAE Z-26.1-1966. The standard was further revised in 1977, in 1983 and in 1990, to include glass-plastic materials under the general term of “safety glazing materials.” The standard was revised again in 1996, which is the latest complete updated version, ANSI/SAE Z-26.1-1996. This SAE Recommended Practice is intended primarily as a guide to the proper selection of safety glazing materials for motor vehicles and motor vehicle equipment operating on land highways.

1. Scope

All safety glazing materials used in motor vehicles and motor vehicle equipment operating on land highways should comply with the requirements of the American National Standard, ANSI/SAE Z-26.1. The American National Standard for Safety Glazing Materials for Glazing Motor Vehicles and Motor Vehicle Equipment Operating on Land Highways—Safety Standard, ANSI/SAE Z-26.1-1996 is the latest complete updated version and is referred to hereafter as “the safety standard.” This SAE Recommended Practice is not intended to preclude references to any governmental law, ordinance, or regulation which might apply to the glazing of motor vehicles and motor vehicle equipment operating on land highways.

1.1 Rationale

This document was revised in accordance to the harmonization of Z26 and ISO regulations.

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2. References

2.1 Applicable Publications

The following publications form a part of this Recommended Practice to the extent specified herein. Unless otherwise indicated, the latest version of SAE publications shall apply.

2.1.1 SAE PUBLICATION

Available from SAE, 400 Commonwealth Drive, Warrendale, PA 15096-0001.

SAE J673—Automotive Safety Glasses

2.1.2 ANSI PUBLICATION

Available from SAE, 400 Commonwealth Drive, Warrendale, PA 15096-0001.

ANSI/SAE Z-26.1-1996—American National Standard for Safety Glazing Materials for Glazing Motor Vehicles and Motor Vehicle Equipment Operating on Land Highways—Safety Standard

3. Definitions

3.1 Safety Glazing Materials

Means a product consisting of organic and/or inorganic materials so constructed or treated to reduce, in comparison with annealed float glass, the likelihood of injury to persons as a result of contact with these safety glazing materials when used in a vehicle, whether they may be broken or unbroken, and for which special requirements regarding visibility, strength and abrasion resistance are set-forth .

3.2 Safety Glass

Means safety glazing materials predominantly ceramic in character that meet the appropriate requirements of the safety standard, including (but not limited to) laminated glass and tempered glass.

3.2.1 LAMINATED GLASS

Means two or more pieces of float glass bonded together by an intervening layer or layers of plastic material. It will crack or 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.

3.2.2 TEMPERED GLASS

(Other terms such as “heat treated glass,” “toughened glass,” “case-hardened glass,” and “chemically tempered glass” are used also.) Means a single piece of specially treated float glass possessing mechanical strength substantially higher than annealed glass. When broken at any point, the entire piece breaks into small pieces that have relatively dull edges as compared to those of broken pieces of annealed glass.