

vapor lamp may be used for the test procedure.

C. Limiting the Width of the Shade Band

DaimlerChrysler (DC) and SAE supported the adoption of SAE J100 to identify areas of glazing not requisite for driving visibility. DC also urged the agency to clarify the definition of shade band to mean any obscuration band on a glazing because of the variations in band application to laminated safety glass (dye or pigment added to interlayer material prior to application) and tempered safety glass (pattern of lines and dots printed onto the glass surface).

Toyota Motor Corporation (Toyota) and the Flat Glass Manufacturers Association of Japan (FGMAJ), however, suggested incorporating "area B," specified in ECE R43 92/22EC to establish boundaries for the shade band instead of incorporating SAE J100 because it would harmonize FMVSS No. 205 with the requirements adopted in Europe and Japan and because application of the "area B" requirement of ECE R43 is current practice for Toyota. More specifically, Toyota stated that FMVSS No. 205 should "prescribe that the area of the windshield other than the 'area B' may be tinted" and FGMAJ stated that the "[d]etermination of the top boundary of windshield for driving visibility should be the upper edge of Zone B, which is drawn in accordance with V1 prescribed in ECE R43."

Additionally, on the issue of whether shade band requirements should be applied to side and rear windows, FGMAJ stated, "[t]his non-requirement provision for driving visibility should be limited to the windshield, which would harmonize with the international standard."

D. Certification and Verification of DOT Numbers

Pilkington Libbey Owens Ford (LOF), and Glassig Inc. (Glassig), both glazing manufacturers, commented that DOT numbers should be kept current and suggested notification to the agency or re-certification every five years so that separate active and non-active manufacturer lists can be prepared. SAE suggested that NHTSA avoid reassigning DOT numbers and also supported the use of separate active and non-active manufacturer lists. Sekurit said that the confusion that results from the reassigning of DOT numbers could be avoided if glass manufacturers were required to apply their trade names to their products. FGMAJ suggested that a manufacturer who simply cuts sections of glazing for use in a motor vehicle

application obtain a separate DOT code number from that of the prime glazing manufacturer who produces the glazing. Additionally, FGMAJ suggested that the definition of "prime glazing manufacturer" should specify the inclusion of aftermarket manufacturers.

E. Other Issues

1. Applicability of Proposal to MPVs

DC and SAE encouraged NHTSA not to delete paragraph S5.1.1.6 of FMVSS No. 205, which states that glazing intended for use in multipurpose passenger vehicles (MPVs) is treated identically to glazing used in trucks. ANSI/SAE Z26.1-1996 expressly prohibits the use of deep tinted windows adjacent to the driver in trucks but is silent with regard to tinting in MPVs.

2. Edge Treatment for Automotive Safety Glass

The SAE recommended that NHTSA eliminate paragraph S5.2 of FMVSS No. 205 because it incorporates by reference the edge treatment requirements (SAE Recommended Practice J673, "Automotive Safety Glasses") that are already incorporated by reference in ANSI/SAE Z26.1-1996.¹⁰

3. Labeling

Toyota suggested that FMVSS No. 205 specify that the cleaning instruction label currently required for Items 12, 13, 16A and 16B not be required for these items of glazing because these items of glazing are not required to meet the 70% light transmittance requirement (Test 2 of the ANSI standard). The NPRM proposed deleting S5.1.2.2 and S5.1.2.10, which contains cleaning instruction label requirements from FMVSS No. 205. Since ANSI/SAE Z26.1-1996 contains the cleaning instruction label requirements for the aforementioned Items, FMVSS No. 205 would incorporate them by reference.

4. Additional Tests

Sekurit expressed the view that additional tests, not included in ANSI/SAE Z26.1-1996, could have been added to FMVSS No. 205. These tests include a head-impact test for windshields (ISO 3537), a requirement for testing of optical properties of a windshield according to ISO 3538, and a mechanical strength test using a 227 g (0.5 lb.) ball at high and low

¹⁰ SAE Recommended Practice J673 provides several mechanical treatments that shape the edge of the finished glazing for either laminated glazing or tempered glass glazing. The intent of these treatments is to reduce the risk of a lacerative injury due to an exposed sharp edge or corner in the finished glazing product.

temperatures. According to Sekurit, ISO 3538 takes windscreen design, rake angle, and field of vision into account while ANSI/SAE Z26.1-1996 tests optical properties by an obsolete method that does not take into account the current design of windshields. Additionally, Sekurit argued that a mechanical strength test using a 227 g (0.5 lb.) ball would more closely approximate real-life conditions than the strength test in ANSI.

IV. Agency Discussion of Issues and Response to Comments

A. Summary of Changes from the NPRM

In response to the comments, the agency is modifying the approach it proposed in the NPRM. The major deviations from the proposal are summarized below.

- The fracture test of ANSI/SAE Z26.1-1996 is clarified to indicate that any piece of glazing subject to the fracture test may be tested, and that the test procedure is a single fracture origin or break point 25 mm (1 in.) inboard at the edge of the midpoint of the longest edge of the specimen as specified in ANSI/SAE Z26.1-1996.

- Shade band areas are required to conform with the SAE J100 recommended practice. However, a substitution of the ECE R43 procedure "up angle" of 7 degrees, instead of the SAE procedure "up angle" of 5 degrees, will be used to determine the upper limit of the area for driving visibility.

B. Meaning of the "Most Difficult Part or Pattern" for the Fracture Test

Currently, Fracture Test No. 7 specifies dropping a 227 g (0.5 lb) ball onto 305 mm × 305 mm (12 in. × 12 in.) laboratory samples of glazing. The drop height starts at ten feet and increases until the samples break. To pass the test, the largest fractured particle must weigh 4.3 g (0.15 oz.) or less.

The proposed fracture test in S5.7.2 specified six production parts representing each construction type model number. Fracture Test No. 7 stated, "[T]he number of specimens selected from each model number of glazing shall be six (6) and shall all be of the *most difficult part or pattern* (emphasis added) designation within the model number." The fracture origin or break point is 25 mm (1 in.) inboard of the edge at the midpoint of the longest edge of the specimen. If the specimen has two long edges of equal length, the edge nearer the manufacturer's trademark is chosen. To obtain fracture, a spring loaded center punch or a hammer of about 75 g (2.65 oz.), each with a point having a radius