

**Pt. 223, App. B**

**49 CFR Ch. II (10–1–10 Edition)**

Materials (ASTM) Specification C33L or ASTM C90.

(1) The Test Specimen for glazing material that is intended for use only in side facing glazing locations shall be subjected to a Type II test regimen consisting of the following tests:

(i) Ballistic Impact in which a standard 22 caliber long rifle lead bullet of 40 grains in weight impacts at a minimum of 960 feet per second velocity.

(ii) Large Object Impact in which a cinder block of 24 lbs minimum weight with dimensions of 8 inches by 8 inches by 16 inches nominally impacts at the corner of the block at a minimum of 12 feet per second velocity. The cinder block must be of the composition referenced in ASTM C33L or ASTM C90.

(12) Three different test specimens must be subjected to the ballistic impact portion of these tests.

(13) Two different test specimens must be subjected to the large object impact portion of these tests.

(14) A material so tested must perform so that:

(i) there shall be no penetration of the back surfaces (side closest to Witness Plate) of the Target Material by the projectile. Partial penetration of the impact (front) surface of the Target Material does not constitute a failure; and

(ii) there shall be no penetration of particles from the back side of the Target Material through the back side of the prescribed Witness Plate.

(15) Test specimens must consecutively pass the required number of tests at the required minimum velocities. Individual tests resulting in failures at greater than the required minimum velocities may be repeated but a failure of an individual test at less than the minimum velocity shall result in termination of the total test and failure of the material.

(16) After successful completion of the prescribed set of required consecutive tests, a manufacturer may certify in writing that a particular glazing material meets the requirements of these standards.

**c. Material Identification**

(1) Each individual unit of glazing material shall be permanently marked, prior to installation, to indicate that this type of material has been successfully tested as set forth in this appendix and that marking shall be done in such a manner that it is clearly visible after the material has been installed.

(2) Each individual unit of a glazing material that has successfully passed the Type I testing regimen shall be marked to indicate:

- (i) "FRA Type I" material;
- (ii) the manufacturer of the material;
- (iii) the type or brand identification of the material.

(3) Each individual unit of a glazing material that has successfully passed the Type II testing regimen shall be marked to indicate:

- (i) "FRA Type II" material;
- (ii) the manufacturer of the material;
- (iii) the type or brand identification of the material.

**APPENDIX B TO PART 223—SCHEDULE OF CIVIL PENALTIES<sup>1</sup>**

Section	Violation	Willful violation
223.9 New or rebuilt equipment:		
(a) Locomotives .....	\$2,500	\$5,000
(b) Caboosees .....	2,500	5,000
(c) Passenger cars .....	2,500	5,000
223.11(c) Existing locomotives	2,500	5,000
(d) Repair of window .....	1,000	2,000
223.13(c) Existing caboosees .....	2,500	5,000
(d) Repair of window .....	1,000	2,000
223.15(c) Existing passenger cars .....	2,500	5,000
(d) Repair of window .....	1,000	2,000
223.17 Identification of units ...	1,000	1,500

<sup>1</sup>A penalty may be assessed against an individual only for a willful violation. The Administrator reserves the right to assess a penalty of up to \$100,000 for any violation where circumstances warrant. See 49 U.S.C. 21301, 21304, and 49 CFR part 209, appendix A. If more than one item is listed as a type of violation of a given section, each item is also designated by a "penalty code," which is used to facilitate assessment of civil penalties, and which may or may not correspond to any subsection designation(s). For convenience, penalty citations will cite the CFR section and the penalty code, if any. FRA reserves the right, should litigation become necessary, to substitute in its complaint the CFR citation in place of the combined CFR and penalty code citation, should they differ.

[63 FR 24676, May 4, 1998, as amended at 69 FR 30594, May 28, 2004; 73 FR 6400, Feb. 1, 2008; 73 FR 79702, Dec. 30, 2008]

**PART 224—REFLECTORIZATION OF RAIL FREIGHT ROLLING STOCK**

**Subpart A—General**

- Sec.
- 224.1 Purpose and scope.
- 224.3 Applicability.
- 224.5 Definitions.
- 224.7 Waivers.
- 224.9 Responsibility for compliance.
- 224.11 Penalties.
- 224.13 Preemptive effect.
- 224.15 Special approval procedures.

**Subpart B—Application, Inspection, and Maintenance of Retroreflective Material**

- 224.101 General requirements.
- 224.103 Characteristics of retroreflective sheeting.
- 224.105 Sheeting dimensions and quantity.
- 224.106 Location of retroreflective sheeting.
- 224.107 Implementation schedule.
- 224.109 Inspection, repair, and replacement.