



Standard Specification for Low Velocity Resilient Material Projectile¹

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1. Scope

1.1 This specification covers critical characteristics of low velocity resilient material projectiles (herein referred to as LVRM projectiles) made of a resilient material, and shall have a diameter no smaller than 20 mm (0.7874 in) and no greater than 30 mm (1.18 in.), with a hardness no greater than 75 Shore 00 in accordance with Specification [D2240](#). This specification helps define whether a projectile is suitable for use with a low velocity projectile marker (herein referred to as LVP marker as defined in Specification [F2574](#)). The weight of the LVRM projectile is not to exceed 4.0 g. Furthermore, this specification establishes minimum warning and package labeling to help ensure that the LVRM projectiles are used in a safe manner and that the risk of injury is reduced.

1.2 A LVRM projectile is not a paintball as defined in Section 2.1.2 of Specification [F1979](#).

1.3 The values stated in SI units are to be regarded as the standard. The values given in parentheses are for information only.

1.4 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and to determine the applicability of regulatory limitations prior to use.*

2. Referenced Documents

2.1 *ASTM Standards:*²

[D2240 Test Method for Rubber Property—Durometer Hardness](#)

[F963 Consumer Safety Specification for Toy Safety](#)

[F1776 Specification for Eye Protective Devices for Paintball Sports](#)

[F1979 Specification for Paintballs Used in the Sport of Paintball](#)

¹ This specification is under the jurisdiction of ASTM Committee [F08](#) on Sports Equipment, Playing Surfaces, and Facilities and is the direct responsibility of Subcommittee [F08.24](#) on Paintball and Equipment.

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² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

[F2574 Specification for Low Velocity Projectile Marker](#)

[2.2 Federal Standards:](#)³

[16 CFR 1500 Hazardous Substance Act Regulations](#)

[2.3 ANSI Standard:](#)⁴

[Z 535.1 Safety Color Code](#)

3. Terminology

3.1 *Definitions of Terms Specific to This Standard:*

3.1.1 *low velocity projectile marker*—device specifically designed to discharge LVRM projectiles. The device is sometimes referred to as a low velocity projectile gun as defined in Specification [F2574](#).

3.1.2 *low velocity resilient material ball*—any spherical, ovoid, or ellipsoidal object. The term “ball” also includes any multisided object formed by connecting planes into a generally spherical ovoid, or ellipsoidal shape that is designated or intended to be used as a ball. A “ball” can be a LVRM projectile.

3.1.3 *low velocity resilient material projectile*—object propelled by means of a discharge mechanism capable of storing and releasing energy under the control of the operator comprised of a resilient material, and have a diameter no smaller than 20 mm (0.7874 in) and no greater than 30 mm (1.18 in.). The hardness of the LVRM projectile is to be no greater than 75 Shore 00 in accordance with Specification [D2240](#). The weight of the LVRM projectile is not to exceed 4.0 g.

3.1.4 *range*—maximum distance to which an object may be propelled, whether limited by energy or an obstacle.

3.1.5 *shore 00*—applicable durometer type scale to measure the resistance of indentation and provide an empirical hardness value of sponge and foam materials in accordance with Specification [D2240](#).

4. General Requirements

4.1 Must be made of a resilient material.

³ Available from U.S. Consumer Product Safety Commission (CPSC), 4330 East-West Hwy., Bethesda, MD 20814, website: www.cpsc.gov; or U.S. Government Printing Office, Superintendent of Documents, P.O. Box 371954, Pittsburgh, PA 15250-7954, website: www.gpo.gov.

⁴ Available from American National Standards Institute (ANSI), 25 W. 43rd St., 4th Floor, New York, NY 10036, website: www.ansi.org. Hard copies are available from Global Engineering Documents, 15 Inverness Way, East Englewood, CO 80112-5704, website: www.gpo.gov.