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An American National Standard

Standard Specification for Eye Protectors for Selected Sports[1]

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1. Scope

1.1 This specification covers eye protectors, designed for use by players of racket sports, women's lacrosse, field hockey, basketball, baseball, and soccer that minimize or significantly reduce injury to the eye and adnexa due to impact and penetration by racket-sport rackets and balls, women's lacrosse and field hockey sticks and balls, baseballs, soccer balls, hands, elbows, and fingers. Protective eyewear offers protection only to the eyes and does not protect other parts of the head.

1.2 Protectors are divided into four types depending on their design characteristics.

1.3 This specification applies to eye protectors for use by wearers of corrective lenses and also by those players who do not require prescription eyewear. (**Warning—**Polycarbonate spectacle lenses should be used if spectacles are worn under protective eyewear.)

1.4 In this standard, the use of the words "shall" or "must" indicates a mandatory requirement. The word "should" indicates a recommendation.

1.5 The values stated in SI units are to be regarded as the standard. The values given in parentheses are for information only. Metric units of measurement in this specification are in accordance with the International System of Units (SI). If a value for measurement as given in this specification is followed by an equivalent value in other units, the first stated is to be regarded as the requirement. A given equivalent value may be approximate.

1.6 The following precautionary caveat pertains only to the test methods portions, Sections 9-11, of this specification: *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 determine the applicability of regulatory limitations prior to use.*

2. Referenced Documents

2.1 *ASTM Standards:*

D 1003 Test Method for Haze and Luminous Transmittance of Transparent Plastics[2]

F 1776 Specification for Eye Protective Devices for Paintball Sports[3]

2.2 *American National Standards:*

ANSI Z80.1 Requirements for First-Quality Prescription Ophthalmic Lenses[4]

ANSI Z80.3 Requirements for Nonprescription Sunglasses and Fashion Eyewear[4]

ANSI Z87.1 Practice for Occupational and Educational Eye and Face Protectors[4]

2.3 *Federal Standard:*

National Institute of Standards and Technology Special Technical Publication 374 Method for Determining the Resolving Power of Photographic Lenses (1973)[5]

3. Terminology

3.1 *Definitions of Terms Specific to This Standard:*

3.1.1 *binocular, adj*—relating to the field of view which is shared by both eyes simultaneously; also any simultaneous activity of the two eyes.

3.1.2 *central viewing zone, n*—that part of the eye of a protector, which has its center in line with the wearer's normal line of sight. The zone is circular in shape, and 40 mm in diameter. The center of the central viewing zone shall be the point of intersection of the line of sight with the lens as mounted on the CSA headform.[6]

3.1.3 *cleanable, n*—the ability of a protective device to be made readily free of dirt or grime without being damaged during an appropriate cleaning process, such as the use of soap and water.

3.1.4 *coverage, n*—a characteristic of a protective device that obstructs straight line paths that are coincident with the wearer's eyes.

3.1.5 *definition (optical), n*—the characteristic of a lens that allows separate distinct points in close proximity to be discerned when looking through the lens.

[1] This specification is under the jurisdiction of ASTM Committee F08 on Sports Equipment and Facilities and is the direct responsibility of Subcommittee F08.57 on Eye Safety for Sports.

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[2] *Annual Book of ASTM Standards*, Vol 08.01.

[3] *Annual Book of ASTM Standards*, Vol 15.07.

[4] Available from American National Standards Institute (ANSI), 25 W. 43rd St., 4th Floor, New York, NY 10036.

[5] Available from National Institute of Standards and Technology (NIST), 100 Bureau Dr., Stop 3460, Gaithersburg, MD 20899-3460.

[6] Available from Canadian Standards Association (CSA), 178 Rexdale Blvd., Toronto, ON Canada M9W1R3.

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