New ANSI/ISEA Z87.1 – 2010 Standard
Overview of Updates and Frequently Asked Questions (FAQs)

INTRODUCTION

The International Safety Equipment Association (ISEA) has announced that the American National Standards Institute (ANSI) has approved and issued the new ANSI/ISEA Z87.1 – 2010 American National Standard for Occupational and Educational Eye and Face Protection (ANSI Z87.1-2010). This standard went into effect April 13, 2010, and updates the 2003 version.

Although the scope of the standard remains mostly unchanged, there are a number of modifications that have significant impact on safety eyewear products and methods companies use to select their eye and face protection. The following outlines these changes and how they impact eye protection products and our customers.

IMPORTANT CHANGES

Z87.1 remains a performance based standard, but the format has been changed. Historically, the standard has been organized by protector type, but it is now organized based upon typically encountered hazards. Employers have had, and continue to have, a responsibility to conduct workplace hazard assessments. The change aligns those identified hazards with products offering protection based on specific performance criteria.

Organization by hazard type adds new product requirements, testing methods and very importantly, expanded product markings that match the protector’s capability to the hazards being defended. Employers will now need to match these markings to the specific hazard addressed. The major areas affected are impact and coverage; droplet/splash, dust and fine dust; and optical radiation.

IMPACT & COVERAGE

- Protectors were previously classified as either basic or high impact. In Z87.1 – 2010, the distinction now is that they are either non-impact or impact rated devices. Impact rated protectors must meet the established high mass and high velocity tests, and defined, continuous lateral coverage is now mandatory. Those protectors satisfying the requirements will carry the Z87+ mark on both the lens and the frame or housing. Compliant prescription products will be marked with Z87-2+.

CHEMICAL SPLASH & DUST

- New product requirements and test methods have been added for products intended to provide protection against chemical splash, dust and fine dust. Protectors meeting the requirements will be marked D3, D4 or D5, respectively, on their frames or housings. Products may satisfy more than one use category and will be marked accordingly.

OPTICAL RADIATION

- Classifications and marking requirements have been added for lenses to indicate their radiation filtration properties and the hazards for which they are intended to provide protection.
OPTICAL RADIATION CONTINUED

- The shade/scale numbers (see examples) indicate levels of protection based on the intensity of the hazard:

  - **Welding Filters**  W and Shade number, i.e. W10
  - **Ultra-violet (UV) Filters**  U and Scale number, i.e. U6
  - **Infra-red (Heat) Filters**  R and Scale number, i.e. R4
  - **Visible Light (Glare) Filters**  L and Scale number, i.e. L2.5

Example: The marking BDZ87+U6D3D4 indicates a Sperian impact rated goggle that provides superior UV filtration and protection against splash and dust hazards.

NEW SIZE REQUIREMENTS

- Provision is made for products designed for smaller head sizes. Such products will be marked with the letter H.

FREQUENTLY ASKED QUESTIONS (FAQS)

Why is the Z87.1 standard changing?
As an organization, ANSI requires that standards be reviewed periodically and either reaffirmed in their current form or updated to reflect industry changes or technical advances. As mentioned above, this new version is now organized by hazard rather than product category.

When is the change to the new edition of ANSI effective?
ANSI/ISEA Z87.1 - 2010 is automatically incorporated in the OSHA regulations covering Personal Protective Equipment (PPE) requirements and, as such, is immediately recognized as the latest version of the standard. However, since the regulations allow for protective eye and face protection meeting the three latest versions of the standards to be used; Z87.1 – 2010, Z87.1- 2003 and Z87.1- 1989 (R1998), and since the transition process takes time to accomplish, it is not necessary to immediately replace your existing eyewear.

Are Uvex® and Sperian® eye and face protectors compliant with the updated standard?
All eye and face protective products offered by Sperian Protection comply with the performance requirements of the new standard. However, they may not carry the new markings which will be phased in as new inventories are built.

Where can I go if I have questions about changes to the standard?
Questions about the new standard may be directed to Sperian Eye & Face Protection or to ISEA via the association’s website, www.safetyequipment.org.

Where can I get copies of the Standard?
Copies of the standard may be obtained through ANSI at www.ansi.org, or ISEA at www.safetyequipment.org.

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Uvex® brand safety eyewear is offered by Sperian Protection exclusively in the Americas.