



ANSI/ISEA 107–2004 Standard Overview

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Introduction ANSI/ISEA 107–2004

- On June 1 1999, a new standard for High-Visibility Safety Apparel was established. On September 15, 2004 the standard was revised and is currently ANSI/ISEA 107–2004.
- The standard provides a consistent authoritative guide for design, performance specifications, and use of high-visibility garments



Basic Testing Requirements for ANSI Compliance

- There are three basic testing requirements for ANSI compliance:
 - **Background Material:** Material is put through a battery of tests that include brightness, colorfastness, and durability. Material must be 3rd party tested for ANSI compliance.
 - **Reflective Material:** Also put through a battery of tests for retro reflectivity at various angles as well as durability testing. Reflective material must be 3rd party tested for ANSI compliance.
 - **Design:** The completed vest must meet several design elements. 3rd party certification is not required for garment design. The manufacturer can self certify that all criteria has been meet and therefore label the garment as ANSI/ISEA 107-2004 compliant based on the specific class requirements



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Garment Label Requirements



- Class of garment
- Level of Reflective Material
- Name of Standard



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Performance Classes

- **The standard defines several classes of garments**
 - Classes 1, 2 & 3 typically cover vests, shirts, jackets and coveralls
 - Class “E” covers pants and shorts
 - The 107-2004 revision included a new product group called “Headwear”.



Performance Class 2

- **Provides superior visibility for wearers by the additional coverage of the torso, and is more conspicuous than Class 1.**
 - Activities where greater visibility is desired during inclement weather conditions
 - Complex backgrounds are present
 - Employees are performing tasks which divert attention from approaching vehicle traffic
 - Vehicles or moving equipment speeds are greater than 25 MPH
 - Work activity takes place in closer proximity to vehicle traffic



ANSI/ISEA 107-2004 CLASS 2

ANSI/ISEA 107-2004	Min. Amt of background fabric	Min. Amt of Reflective Tape	Min. Width of Reflective Tape
Class 2	775 Sq. In.	201 sq. in. 8.375 feet of 2" Wide Reflective tape	1 3/8" wide



Class 2 Examples

● **Examples:**

- Roadway construction workers
- Utility workers
- Survey crews
- Railway workers
- Crossing guards
- Parking and/or toll gate personnel
- Airport baggage handlers/ground crew
- Emergency response personnel
- Law enforcement
- Accident site investigators



Performance Class 3

- Offers greater visibility to the wearer in both complex backgrounds and through a full range of body movements. Visibility is enhanced beyond the performance of class 2 through enhancement of background and reflective materials to the arms and/or legs. ***Regardless of the area of materials used, a sleeveless garment or vest alone shall not be considered performance class 3.***
 - Workers exposed to significantly higher vehicle speeds and/or reduced sight distance
 - Work and vehicle operators have high task loads, clearly placing workers in danger
 - Wearer must be conspicuous through the full range of body motions at a minimum of 1280 feet, and must be identifiable as a person.



ANSI/ISEA 107-2004 CLASS 3

ANSI/ISEA 107-2004	Min. Amt of background fabric	Min. Amt of Reflective Tape	Min. Width of Reflective Tape
Class 3	1240 Sq. In.	310 sq. in 12.92 feet	2" wide



Class 3 Examples

- **Examples:**
 - Roadway construction personnel
 - Utility workers
 - Survey crews
 - Emergency response personnel
 - Flagging crews



Performance Class E

What to know about Class E pants

- Class 2 Vest + Class E trousers = Class 3 Ensemble



Other considerations

- A Risk Assessment should be made by a qualified representative prior to exposing workers to dangerous working conditions
- Fog, rain, low light conditions all play a part in determining what class a workers falls into.
- Be diligent in choosing the right garment for your workers!!



Regulations

2008 Regulations

- **Each Year**
 - Over 100 Workers are Killed on Federal Highway projects each year.
 - Approximately 20,000 Injured
 - Failing infrastructure of our highways requires more workers on job sites, thus increasing risk.
- **There was a dire need to stop, analyze and create a new regulation structure to reduce and/or stop these statistics from increasing.**



2008 Regulations

Federal Highway Administration 23 CFR (Code of Federal Regulations) PART 634 / November, 24, 2006

- **1. Executive Order**
 - SAFETEA-LU (Safe, Accountable, Flexible, Efficient Transportation Act - A Legacy for Users)
- **2. Secretary of Transportation**
 - Within one year the secretary of transportation was required to develop a plan to reduce the number of injuries and deaths on Federal Highways
- **3. FHWA**
 - The FHWA's job is implement this statutory requirement.



What does this mean to me?

- **Beginning November 24, 2008, Workers that are in close proximity to or on a Federal Aid Project must wear a Class 2 or 3 ANSI/ISEA 107-2004 compliant safety Vest.**
- **What industries must comply?**
 - Construction
 - Maintenance and Utility
 - Traffic Management
- **Who regulates this mandate?**
 - FHWA Lacks direct enforcement or civil penalty authority. However, the withholding of payments for future Federal Aide projects may be implemented.



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Other Regulations to Know MUTCD

- **MUTCD (Manual of Uniform Traffic Control Devices)**
 - Published by the Federal Highway Administration FHWA
 - Bible for all highway contractors
- **Worker Considerations**
 - Current regulation
 - ✓ WWW.MUTCD.FHWA.DOT.GOV
 - ✓ MUTCD 3003 EDITION PART 6 CHAPTER 6E.
 - ✓ Section 6E. 02
- **Flaggers Ruling**
 - ✓ WWW.MUTCD.FHWA.DOT.GOV
 - ✓ MUTCD 3003 EDITION PART 6 CHAPTER 6E.
 - ✓ Section 6E. 02
- **Crossing Guards**
 - ✓ WWW.MUTCD.FHWA.DOT.GOV
 - ✓ MUTCD 2003 EDITION PART 7 CHAPTER 7E.
 - ✓ Section 7E.04





ANSI/ISEA 207-2006 Public Safety Standard Overview

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ANSI/ISEA 207-2006 Standard for Public Safety Vests

- ANSI/ISEA 207-2006 Public Safety Standard – A Modified Version of the 107-2004 High Visibility Standard.
- Goal: Differentiate Police, Fire and EMS personnel from other non-related personnel.
- *Immediate* identification

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ANSI/ISEA 207–2006 Standard for Public Safety Vests

How does the 207 standard differ from the 107 standard?

- No Classifications – It's just the Public Safety Vest Standard (PSV)
– no Class 1, 2 or 3.
- Less Background material than a ANSI/ISEA 107–2004 Class 2 garment
 - 207–2006 450 sq. in.
 - 107–2004 775 sq. in. (Class 2)
- Same amount of Reflective material as a Class 2 Vest
 - 207–2006 201 sq. in. (2" material only)
 - 107–2004 201 sq. in. (Class 2 – can use 1 3/8" material)
- Identification Panels Recommended
 - Contrasting non–high visibility panels shall not exceed 72" on either the front or rear of the vest.



ANSI/ISEA 207–2006 Standard for Public Safety Vests

- The following are the Standards Suggests Optional Features
 - Breakaway feature
 - Pockets
 - Panels
 - Identification
 - Red – Fire
 - Blue – Police
 - Green – EMS
- Labeling
 - Pictogram of the vest is not required.

