Understanding the Standard for High-Visibility Clothing

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High-visibility (abbreviated as hi-vis) clothing was designed to make you easier to spot when you are at a work site, out for a walk where vehicles are present or any other time you want to make sure that you are seen. All hi-vis clothing, however, is not created equal. There are different classes, different levels and different types.

The purpose of this paper is to help you navigate these differences to make sure that you have the best protection as well as being compliant.

The ANSI/ISEA 107-2015 standard was designed by the American National Standards Institute (ANSI) along with the International Safety Equipment Association (ISEA) in order to determine which hi-vis vest, jacket, raingear, etc… needs to be worn in which situation in order to make sure that employees are visible enough to maintain a safe working environment.

Hi-vis garments are available in raingear, sweatshirts, T-shirts, pants, vests, fall protection vests, hats and incident command vests.

Colors

There are only three colors that meet the standard. These colors are fluorescent yellow-green, fluorescent orange-red and fluorescent red. Any other color does not meet the standard. Be aware of this as there are many different color vests available. Only these three colors meet the standard.

**Class 1, 2, 3 and E**

There are three classes of hi-vis clothing, each for a specific job application.

**Class 1** – Designed for areas that are removed from traffic or where the traffic that is present never exceeds 25 MPH.

A Class 1 vest or jacket must have a minimum of 6.46 linear feet of 2" reflective tape or 9.39 linear feet of 1 3.8" reflective tape and at least 217 in² of high-visibility background material.

**Class 2** – Designed for areas where the traffic does not exceed 50 MPH. As a general rule this includes most roadways but excludes highways.

A Class 2 garment must have a minimum of 8.375 linear feet of 2" reflective tape or 12.2 linear feet of 1 3.8" reflective tape and at least 775 in² of high-visibility background material.

**Class 3** – Designed for highways and roadways where speeds will exceed 50 MPH.

A Class 3 garment must have a minimum of 12.92 linear feet of 2" reflective tape and at least 1240 in² of high-visibility background material.

**Class E** – Designed for pants. A Class E pair of pants adds additional background material and reflective tape so that, when combined with a class 2 vest, coat or jacket, we end up with a Class 3 assemble.
Level 1 and 2
In addition to having a “class” rating, you will often see a hi-vis garment with a “level” rating. The level rating actually applies to the reflective tape on the garment. Level 1 retro reflective tape must exceed 65cd/(lx • m2) at observation angle 12° and entrance angle 5° cd/(lx/m2) and a level 2 must exceed 330cd/(lx • m2) at observation angle 12° and entrance angle 5°.

Type “O”, “P” and “R”
Finally, there is also a “type” classification for hi-vis garment designed to reflect the environment in which they are used.

Type O – The “O” stands for “Off-road”.
Type R – The “R” stands for “Roadway”
Type P – The “P” stands for “Public Safety”

Additional considerations
Many hi-vis garments are now also available in a flame resistant material for work in environments where flammability is an issue. Look for the “FR” on the label.

Counterfeits and Fakes
There are plenty of hi-vis garments out there that are made with inferior materials that do not meet the standard. These garments may or may not have fake labels in them that say that they are ANSI approved when, in fact, they are not. Only purchase garment made by trusted manufacturers like M. L. Kishigo, PIP, Radians, Tingley, Majestic, Ergodyne, Blaklader and Occunomix