

# Introducing VizLite® Dual Technology Tapes

for the next generation for Hi Visibility Work Wear



## 10 reasons for using VizLite® Dual Technology

- 1 Added level of visibility in low light and no light conditions
- 2 Significantly lower in cost than any other systems on the market
- 3 Easy to add to existing garment designs
- 4 No special laundry requirements
- 5 Certified to EN ISO 20471:2013 and ANSI/ISEA 107:2010 international standards
- 6 No external power, so not reliant on external charging
- 7 "Charged" by exposure to either natural or artificial lighting within minutes
- 8 Lasts up to 8 hours once charged
- 9 Environmentally friendly and certified to Oeko-Tex standard 100
- 10 Works even when submerged in water



*VizLite® Dual Technology tape being charged by artificial light*

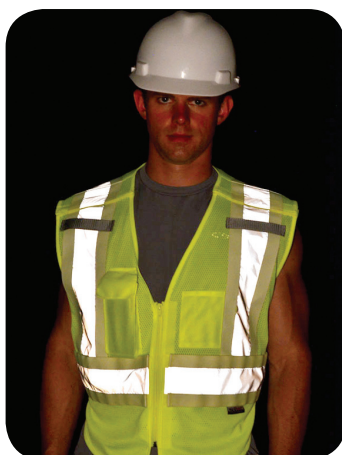
## Three levels of Protection

By using VizLite® Dual Technology on Hi Visibility safety garments you are offering wearers three levels of protection, bright Fluorescent hi visibility fabrics, retro reflectivity and light emitting phosphorescence. VizLite® Dual Technology introduces an extra level of visibility in unlit and low light condition, suitable for those who work in industries such as Rail, Mining and Traffic Management.

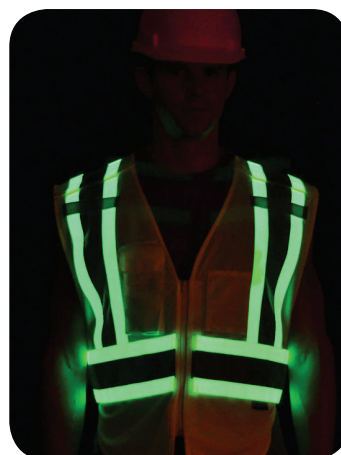
**VizLite® Dual Technology tape can be easily incorporated into existing ranges of certified clothing without the need for major changes to technical files.**



**1** Fluorescence



**2** Retro Reflectivity



**3** Photo Luminescence



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## VizLite® Dual Technology combines two technologies, retro-reflectivity and photo luminescence.

The retro reflective material is constructed from mbeads®, micro beads of high index glass half coated with aluminium. These work like thousands of tiny retro reflectors reflecting light back to the source, offering levels of brightness up to 500 Candelas.

Photoluminescent materials absorb ultraviolet light and emit visible light. There are two types of photoluminescence: fluorescence and phosphorescence.

VizLite® Dual Technology tape incorporates phosphorescent material, which absorbs ultraviolet or visible light through electromagnetic radiation. When the light source is extinguished, phosphorescent materials continue to emit photons of light which is called afterglow.

The initial afterglow when measured in millicandelas per square metre (mcd/m²) using a photometer is 1830 (mcd/m²) and extinction time for afterglow to diminish to (0.32 mcd/m²) or about 100 times limit of human perception is 480 minutes. (8 hours)

Minutes from initial afterglow	2	10	20	30	60
Luminous intensity mcd/m²	1830	343	171	110	59

Table showing measured levels of light emissions in millicandelas from photoluminescence element of VizLite® Dual Technology from 2 minutes to 60 minutes after initial afterglow.

## Composition

VizLite® Dual Technology tapes are available in a standard width of 71mm, with the retro reflective measuring 50.8mm to ensure compliance with international specifications. The Photo luminescence component measures 10mm either side of the reflective. Other widths are available subject to volume.



VizLite® DT in low light conditions

## Laundry

There are no special laundry requirements for VizLite® Dual Technology, which has been certified to the following laundry specification for EN ISO 20471:2013 and ANSI/ISEA107:2010

- 50 domestic wash cycles at 60°C



Composition for EN ISO 20471 / ANSI/ISEA 107:2010 is 50.8mm reflective and 10mm photo luminescence

