

## STANDARDS EXPLAINED



### BS EN ISO 20471:2013 - New High Visibility Standard

BS EN ISO 20471:2013 specific requirements for high visibility clothing which is capable of visually signalling the user's presence. The high visibility clothing is intended to provide conspicuity of the wearer in any light condition when viewed by operators of vehicles or other mechanized equipment during daylight conditions and under illumination of headlights in the dark. Performance requirements are included for colour and retroreflection as well as for the minimum areas and for the placement of the materials in protective clothing.

This revised standard is intended to encompass most of the previous 2003 requirements while allowing for more "Corporate" styling without reducing personal safety. For example, retro-reflective tape can be positioned at angles +/- 20degrees. Garments tested to BS EN471:2003 can continue to be sold however any new design must be tested to the revised standards.



### EN471 - Specification for High Visibility Clothing

There are 3 classes of garment type based on the levels of conspicuity they provide, with the classes dictating the minimum quantities of background and retroreflective materials to be used. On all garments, the retroreflective tape must not be less than 50mm wide.

#### Class 3:

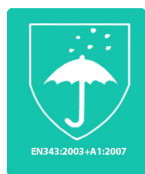
- Highest level of conspicuity
- Minimum background material 0.80m<sup>2</sup>
- Minimum retro-reflective material 0.20m<sup>2</sup> I.e. Jackets or coveralls with sleeves to be worn in accordance with Clause 4.2.4 and to Class 3 on dual carriageway roads with a speed limit of 50mph or above

#### Class 2:

- Minimum background material 0.50m<sup>2</sup>
- Minimum retro-reflective material 0.13m<sup>2</sup>

#### Class 1:

- Minimum background material 0.14m<sup>2</sup>
- Minimum retro-reflective material 0.10m<sup>2</sup> I.e. Minimal risk such as off road activities

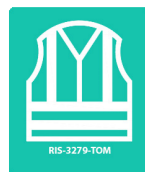


### EN343:2003 – Protection against Rain

This standard specifies the requirements for protective clothing against the effects of foul weather (rain, wind and snowflakes). Garments according to this standard also offer protection against cold and therefore follow the BS EN342 standard and have corresponding markings. It also happens to be that protection against rain and visibility are needed in the same garment.

The requirements of the BS EN343 Include:

- Water resistance
- Moisture, vapour and perspiration or 'breathability' of the garment
- Strength of garment components – tensile, tear, seam strength and shrinkage



### GO/RT 3279 REPLACED WITH RIS-3279-TOM

GO/RT 3279 is the standard produced by The Railway Group for the minimum requirements for high visibility clothing, to ensure people are conspicuous when working on or near railway tracks. The standard tries to ensure that clothing worn by workers on or near railway tracks should conform to a single standard for the colour and luminance of background material, and should conform to a single standard for the photometric and physical performance of retroreflective material to aid conspicuousness in darkness or poor visibility.

All Future Garments products certified to GO/RT 3279 will meet the requirements of the new Rail Industry Standard (RIS-3279-TOM).