

Australian Standard for Materials for High Visibility Safety Garments

AS/NZS 1906.4:1997

THIS INFORMATION IS INTENDED FOR ADVICE ONLY AND SHOULD BE USED IN CONJUNCTION WITH THE STANDARD

AS/NZS 1906.4:1997

This Standard specifies only the physical performance requirements for high visibility materials to be used on high visibility safety garments for:

- a) outdoor daytime use (*Class F materials*)
- b) retroreflective materials for use at night and low level light conditions (*Class R materials*)
- c) both outdoor daytime and nighttime conditions (*Class RF materials*)

for use in the manufacture of, or for incorporation into safety garments where the wearer needs to be highly visible.

Class R Materials

Class R retroreflective materials are to “.....comprise a flexible fabric, plastic or film system incorporating retroreflective elements of either the exposed lens, the enclosed lens, the encapsulated lens or the microprismatic type”, **Clause 3.2 AS/NZS 1906.4:1997**. To be incorporated into high visibility safety garments, they must meet certain performance requirements. Refer to Table 3.1 in AS/NZS 1906.4:1997 for a summary of these requirements and details of the test methods that are to be followed..

To ensure the highest safety levels are reached, all silver 3M Scotchlite™ retroreflective fabrics and films have been independently certified as exceeding Class R requirements, the highest brightness category level of AS/NZS 1906.4:1997.

Class R Washing - Retention of reflectivity

“ When samples of Class R materials are subjected to five (5) cycles Washing Test 2A as specified in AS 2001.5.4 and then drying procedure V (tumble-dry) they shall have a CIL/m^2 (reflectivity) value not less than $100cd/lux/m^2$ ”, **Clause 3.5.4 AS/NZS 1906.4:1997**.

This washing requirement legitimises any retroreflective material which loses **over two-thirds** of its reflectivity after only 5 wash cycles! **3M Scotchlite™** silver products are independently certified by the Australian Wool Testing Authority (AWTA) to meet the washing requirement of AS/NZS 1906.4:1997 **after 30 wash cycles, including dry-cleaning!**

* For information on the other requirements for Class R materials and Class RF materials, refer to AS/NZS 1906.4:1997.



For conformance, reliability and quality - look out for the Scotchlite label



Australian Standard for High Visibility Safety Garments

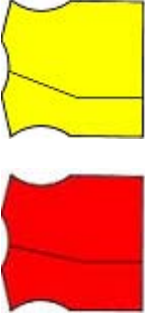
AS/NZS 4602:1999

Sections 6 - 8 of the Standard detail specific design requirements for all garment classes. Figure 1 and Appendix A of the Standard illustrate examples of possible designs which meet these requirements.

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Class D Garments

Class D Garments are intended to provide the wearer with high visibility in outdoor situations under daylight viewing conditions only. Class D Garments comprise a fluorescent or other high visibility background material and should not be worn at night or low-level light conditions that place the wearer at risk.



Examples of a Class D Garment

Class D/N Garments

Class D/N Garments are the only garment type that afford the wearer **24 hour visibility**. Designed for **both day and night use**, they are comprised of retroreflective materials on a fluorescent or other high visibility background material.



Examples of a Class D/N Garment

Class N Garments

Class N Garments are intended to provide the wearer with high visibility at night when viewed typically by drivers of approaching vehicles. The colour of the background material of Class N Garments is not specified as visibility is achieved by the incorporation of retroreflective material. Class N Garments should not be worn during daylight hours where the absence of a high daytime visibility material may place the wearer at risk.



Examples of a Class N Garment

What does this mean to you?

All those working in situations where they may be exposed to moving traffic should wear high visibility clothing conforming to the standard, for example:

- Road workers
- Refuse collectors
- Electricity and telephone repair crews
- Toll collection staff
- Tow truck drivers
- Airline ground staff
- Roadside assistance
- Police and Ambulance
- Firefighters

“Retroreflective material shall be applied to garments in strips not less than 50 mm wide”

Clause 7.2 - AS/NZS 4602:1999.

To ensure the highest safety levels are reached, all silver 3M Scotchlite™ retroreflective fabrics and films exceed the highest brightness category level of AS/NZS 1906.4:1997 and are manufactured within an ISO 9002 controlled manufacturing environment.

3M Scotchlite™
Reflective Material

For performance, reliability and quality -look out for the Scotchlite label

