PERSONAL PROTECTIVE EQUIPMENT
HIGH VISIBILITY CLOTHING

The European Directive 89/686/EEC gives the conditions governing placing items of Personal Protective Equipment (PPE) on the market and the free movement of these goods within the European Community. The Directive also lists out the basic safety requirements which PPE must satisfy in order to ensure the health protection and safety of users.

Enhanced visibility in work environments in any lighting conditions (e.g. under daylight condition or vehicle headlights in darkness condition) is considered a critical safety issue. Enhanced visibility can be provided by wearing "high visibility clothing" which consists of fluorescent background material and retroreflective material. This type of clothing provides contrast against background environments in daylight conditions and contrast when seen in headlights during darkness conditions, respectively. However, users should consider prevailing ambient background in which protection is required and select the colour that provides the preferred contrast.

There are two key high visibility clothing test standards under the European Directive 89/686/EEC:

- EN ISO 20471 High-visibility clothing – Test methods and requirements
- EN 1150 Protective clothing – Visibility clothing for non-professional use – Test methods and requirements

In general, these standards contain three main sections on performance requirements. Below lists some examples of the requirements in EN ISO 20471. In addition, it is also necessary to meet the general requirement for protective clothing.

DESIGN OF GARMENT

- Area of background material and retroreflective tape
- Distribution of background material and positioning of retroreflective tape
- Design and width of retroreflective bands

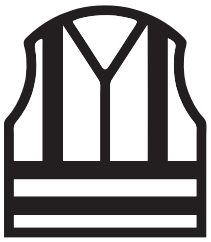
REQUIREMENTS FOR RETROREFLECTIVE MATERIAL

- Retroreflective performance in terms of coefficient of retroreflection in specified entrance angles and observation angles - original and after test exposures
- Exposures such as abrasion, flexing, folding at cold temperature, temperature variation, washing, dry cleaning and influence of rainfall

REQUIREMENTS FOR BACKGROUND MATERIAL (FLUORESCENT), AND NON-FLUORESCENT MATERIAL

- Colour performance in terms of Chromaticity Coordinates (x, y) and the luminance factor (Y) of the background material – original and after sunlight exposure
- Colour fastness tests: colour fastness to rubbing, perspiration, washing, bleaching, hot pressing, drycleaning
- Physical tests: Dimensional stability, water vapour resistance, thermal resistance, tensile strength, bursting strength, tear strength

For EN ISO 20471 High visibility garments, the pictogram is:



x

Where x indicates the garment class.

CE CERTIFICATION

High-visibility clothing is classified in the Personal Protective Equipment Directive 89/686/EEC as intermediate design (Category II).

In order to supply Category II PPE within Europe the products must undergo an EC type examination by a Notified Body.

WHY CHOOSE SGS?

SGS's PPE solutions provide one stop testing and certification services for high visibility clothing.

1. TESTING

SGS has laboratories which are accredited to conduct. After completion of testing, SGS laboratories provide assistance to manufacturer in compiling technical files and coordinate with Notified Bodies for application of EC type examination.

2. CERTIFICATION

SGS United Kingdom Limited is a Notified Body (0120) approved to provide certification for EC type examination under Article 10 of the Directive.

CONTACT

For further details, please contact our regional office or your usual SGS contact.

GLOBAL SOFTLINES DEVELOPMENT OFFICE
Email: Global.SL@sgs.com

ASIA – SGS HONG KONG
Phone: +852 2334 4481
Email: HK.SL.Enquiry@sgs.com

EUROPE – SGS UNITED KINGDOM
Phone: +44 (0)203 008 7860
Email: GB.CTS.Sales@sgs.com

AMERICA – SGS NORTH AMERICA CONSUMER TESTING SERVICES
Phone: +1 973 575 5252
Email: USCTS.Softlines@sgs.com

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WHEN YOU NEED TO BE SURE

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