
In June 2013, two new sunglasses testing standards: EN ISO 12312-1:2013 and EN ISO 12311:2013 were published and replace the current standard EN 1836:2005+A1:2007 which will be withdrawn by February 2014.


Once the standard (EN ISO 12312-1:2013) has been cited in the Official Journal of the European Union and implemented in member states, compliance with the clauses of the standard given in ZA.1, gives a presumption of conformity with the corresponding Essential Safety Requirements of the PPE Directive and associated EFTA regulations.


- Construction and materials,
- Transmittance,
- Refractive power,
- Robustness,
- Resistance to solar radiation,
- Resistance to ignition,
- Resistance to abrasion (optional specification),
- Protective requirements,
- Information and labeling.

The following are the main technical changes compared with the superseded harmonized standard (EN 1836) under the PPE directive:

- New luminous transmittance, UV and refractive power requirements,
- Wide angle scattering shall not exceed the value of 3 % at reference point by haze meter (new),
- New optional specification (new):
  - Increased endurance of sunglasses (Technically equivalent to EN ISO 12870),
  - Resistance to perspiration (Technically equivalent to EN ISO 12870),
- Impact resistance of the filter (Strength level 3), by a 6mm nominal diameter steel ball with 0.86g mass, at a velocity of 45m/s,
- Resistance to abrasion (ISO 8980-5),
- Defined protective coverage area shall be provided by adult/children sunglasses (new),
• Temporal protective requirement for very dark, special purposes (filter category 4) sunglasses. (new),
• Information to be supplied with each pair of sunglasses, e.g.
• Description of the filter category in the form of a symbol and/or verbal description,
• Not for direct observation of sun,
• Not for protection against artificial light sources, e.g. solaria (new),
• Not for use as eye protection against mechanical impact hazard (for product not satisfying the strength 1 impact resistance requirement or resistance to perspiration) (new),
• Not suitable for driving and road use (not meeting the necessary requirements for driving and for category 4 filter),
• Not suitable for driving in twilight or at light or Not suitable for driving at night or under condition of dull light (filter with luminous transmittance between 75% and 8%) (new).

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