

# DIN EN ISO 12609-1:2026-03 (E)

## Eye and face protection against intense light sources used on humans and animals for cosmetic and medical applications - Part 1: Specification for products (ISO 12609-1:2021)

---

| <b>Contents</b>     |   | <b>Page</b> |
|---------------------|---|-------------|
| <b>Foreword</b>     |   | <b>iv</b>   |
| <b>1</b>            | <b>Scope</b>  | <b>1</b>    |
| <b>2</b>            | <b>Normative references</b>   | <b>1</b>    |
| <b>3</b>            | <b>Terms and definitions</b>  | <b>1</b>    |
| <b>4</b>            | <b>Classes of ILS eye protectors</b>                                    | <b>2</b>    |
| <b>5</b>            | <b>General requirements for ILS eye protectors</b>                      | <b>2</b>    |
| 5.1                 | Ambient temperatures  | 2           |
| 5.2                 | Physiological compatibility   | 2           |
| 5.3                 | Construction and adjustment   | 3           |
| 5.4                 | Cleaning and/or disinfection  | 3           |
| 5.5                 | Headform(s)   | 3           |
| 5.6                 | Mandatory and optional requirements                                     | 3           |
| <b>6</b>            | <b>Transmittance</b>  | <b>3</b>    |
| 6.1                 | General   | 3           |
| 6.2                 | Luminous and spectral transmittance for F-scale numbers                 | 4           |
| 6.3                 | Luminous and spectral transmittance for B-scale numbers                 | 4           |
| 6.4                 | Uniformity of luminous transmittance and transmittance matching         | 5           |
| <b>7</b>            | <b>Colour neutrality (optional requirement)</b>                         | <b>5</b>    |
| <b>8</b>            | <b>ILS eye protectors with autodarkening filters</b>                    | <b>5</b>    |
| 8.1                 | General   | 5           |
| 8.2                 | Transmittance   | 6           |
| 8.3                 | Angular dependence of luminous transmittance                            | 6           |
| 8.4                 | Switching time  | 6           |
| <b>9</b>            | <b>Construction of ILS eye protectors</b>                               | <b>6</b>    |
| 9.1                 | Area to be protected from ILS radiation                                 | 6           |
| 9.2                 | Frames and lateral protection   | 8           |
| 9.3                 | Material and surface quality  | 8           |
| 9.4                 | Field of view   | 8           |
| 9.5                 | Optical properties  | 8           |
| 9.5.1               | Spherical and cylindrical power   | 8           |
| 9.5.2               | Spatial deviation   | 9           |
| 9.5.3               | Prismatic power of unmounted plano filters covering one eye             | 9           |
| 9.5.4               | Prism imbalance for mounted filters and one-piece protectors            | 9           |
| 9.5.5               | Narrow angle scatter  | 9           |
| 9.6                 | Resistance to ignition  | 9           |
| 9.7                 | Resistance to UV radiation  | 9           |
| 9.8                 | Resistance to thermal exposure  | 10          |
| 9.9                 | Basic impact level of complete ILS eye protectors                       | 10          |
| 9.9.1               | Complete protector  | 10          |
| 9.9.2               | Failure criteria  | 10          |
| 9.9.3               | ILS eye protectors with prescription inserts to carry corrective lenses | 11          |
| <b>10</b>           | <b>Marking</b>  | <b>11</b>   |
| 10.1                | General   | 11          |
| 10.2                | Mandatory markings  | 11          |
| <b>11</b>           | <b>Information to be supplied by the manufacturer</b>                   | <b>12</b>   |
| <b>Bibliography</b> |   | <b>13</b>   |