



**SLOVENSKI STANDARD**  
**SIST EN ISO 16321-1:2022/oprA1:2023**

**01-marec-2023**

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**Zaščita za oči in obraz za poklicno uporabo - 1. del: Splošne zahteve - Dopolnilo  
A1 (ISO 16321-1:2021/DAM 1:2023)**

Eye and face protection for occupational use - Part 1: General requirements -  
Amendment 1 (ISO 16321-1:2021/DAM 1:2023)

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Protection des yeux et du visage à usage professionnel - Partie 1 : Exigences générales  
- Amendement 1 (ISO 16321-1:2021/DAM 1:2023)

<https://standards.iteh.ai/catalog/standards/sist/c353250d-cca6-425e-9730-16321-1:2022/oprA1:2023>

**Ta slovenski standard je istoveten z: EN ISO 16321-1:2022/prA1**

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**ICS:**

13.340.20 Varovalna oprema za glavo Head protective equipment

**SIST EN ISO 16321-1:2022/oprA1:2023 en,fr,de**



# DRAFT AMENDMENT ISO 16321-1:2021/DAM 1

ISO/TC 94/SC 6

Secretariat: BSI

Voting begins on:  
2023-01-10Voting terminates on:  
2023-04-04

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## Eye and face protection for occupational use —

### Part 1: General requirements

### AMENDMENT 1

*Protection des yeux et du visage à usage professionnel —**Partie 1: Exigences générales**AMENDEMENT 1*

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ICS: 13.340.20

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Reference number  
ISO 16321-1:2021/DAM 1:2023(E)

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This document was prepared by Technical Committee ISO/TC 94, *Personal safety — Personal protective equipment*, Subcommittee SC 6, *Eye and face protection*.

A list of all parts in the ISO 16321 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at [www.iso.org/members.html](http://www.iso.org/members.html).



# Eye and face protection for occupational use —

## Part 1: General requirements

### AMENDMENT 1

#### Scope

##### 1

Add at the end of the second paragraph:

Part 4 provides requirements and guidance on protectors against biological hazards<sup>1</sup>.

With the footnote:

<sup>1</sup> In preparation.

#### Field of view

##### 5.1

Replace the two paragraphs with:

Excluding face shields and eye shields mounted on another item of PPE that restricts the field of view, e.g., a protective helmet, protectors, when in the as-worn position and measured at the corneal apices of the headform in accordance with ISO 18526-3:2020, 6.2, shall have a minimum unobstructed field of view in front of each eye of 30° temporally and nasally in the horizontal meridian, and 30° superiorly and inferiorly in the vertical meridian.

Face shields and eye shields mounted on another item of PPE that restricts the field of view, when in the as-worn position and measured at the corneal apices of the headform in accordance with ISO 18526-3:2020, 6.2, shall have a minimum unobstructed field of view in front of each eye of 30° temporally and nasally in the horizontal meridian, and

- a minimum field of view in the superior direction of no less than 1° smaller than that provided by any field of view requirements for the helmet or other PPE, and
- a minimum field of view in the inferior direction of 30°, and
- a minimum field of view in the vertical direction (superior and inferior combined) of 60°.

Protectors used for driving shall have a minimum unobstructed field of view in front of each eye of 60° temporally and 30° nasally in the horizontal meridian and 30° superiorly and inferiorly in the vertical meridian, when measured at the corneal apices of the headform in accordance with ISO 18526-3:2020, 6.2.

Luminous and spectral transmittance and scale numbers – Table 1

6.3.3.2 – Headers in Table 1 – Amend the headers in columns 3 and 4, row 4

## ISO 16321-1:2021/DAM 1:2022(E)

Scale number	Wavelength range from 280 nm to 400 nm			Visible spectral range	Optional infrared spectral range
	Maximum solar UV-B transmittance	Maximum solar UV-A transmittance	Maximum mean 380 nm to 400 nm transmittance	Luminous transmittance	Maximum solar IR transmittance
	$\tau_{\text{SUVB}}$ $280 \text{ nm} \leq \lambda \leq 315 \text{ nm}$ (%)	$\tau_{\text{SUVA } 380}$ $315 \text{ nm} \leq \lambda \leq 380 \text{ nm}$ (%)	$\tau_{\text{m}380-400}$ $380 \text{ nm} \leq \lambda \leq 400 \text{ nm}$ (%)	$\tau_{\text{v},\text{D65}}$ $380 \text{ nm} \leq \lambda \leq 780 \text{ nm}$ (%)	$\tau_{\text{SIR}}$ $780 \text{ nm} \leq \lambda \leq 2\,000 \text{ nm}$ (%)

## Marking of sunglare filters

## 6.3.3.3

Replace the text with:

Sunglare filters that meet the mandatory transmittance requirements given in Table 8 shall be marked by code letter G. Sunglare filters of shade numbers 0, 1, 2 or 3 shall comply with the requirements of 6.1, detection of signal lights, and shall be marked with G0, G1, G2 or G3. Sunglare filters of scale number G0, G1, G2 or G3 are suitable for road use and driving.

Sunglare filters of shade number G4 comply with the requirements of 6.1 but are not suitable for road use and driving.

Photochromic filters shall be identified and labelled with their shade numbers corresponding to their faded state  $\tau_{\text{v},0}$  and darkened state  $\tau_{\text{v},1}$ , e.g. G0-2.

Sunglare filters that meet the optional infrared transmittance requirements shall be marked with the code letter GR.

## Area to be protected

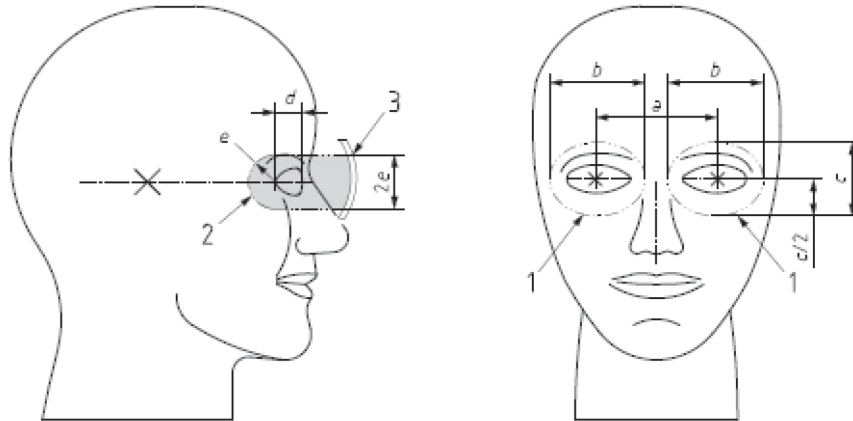
## 7.1.1

Replace the first sentence with the following:

Figures 1, 2 and 3 and Tables 11 to 14 describe the minimum areas to be protected.

Replace Figures 1 and 2 with the following Figure:





Replace the Key with the following:

**Key**

- 1 frontal eye protection zone
- 2 lateral eye protection zone
- 3 front surface of protector lens
- \* corneal apices (centres of the ellipse)
- + lateral canthus
- × resting point of the sides
- a–e as defined in Tables 11 and 12.

7.1.1, Table 11

SIST EN ISO 16321-1:2022/oprA1:2023

Replace by the following:

Dimensions see Figure 1	Headform						
	1-C12	1-S	1-M	1-L	2-S	2-M	2-L
$a^a$	58	60	64	68	63	64	70
$b$	24	36	40	42	33	35	40
$c$	20	25	28	29	23	24	28
$d$	8	9	12	13	7	8	9
$e$	10 mm around lateral canthus location				10 mm around lateral canthus location		

<sup>a</sup> Dimension  $a$  is the same as dimension  $D$  in ISO 18526-4:2020, Table 2 and Table 3.  
NOTE There are no dimensions available for headforms 2-C12.

7.1.1, Table 12

Replace by the following:

Dimensions see Figure 1	Headform						
	1-C12	1-S	1-M	1-L	2-S	2-M	2-L
$a^a$	58	60	64	68	63	64	70
$b$	32	36	40	42	33	35	40

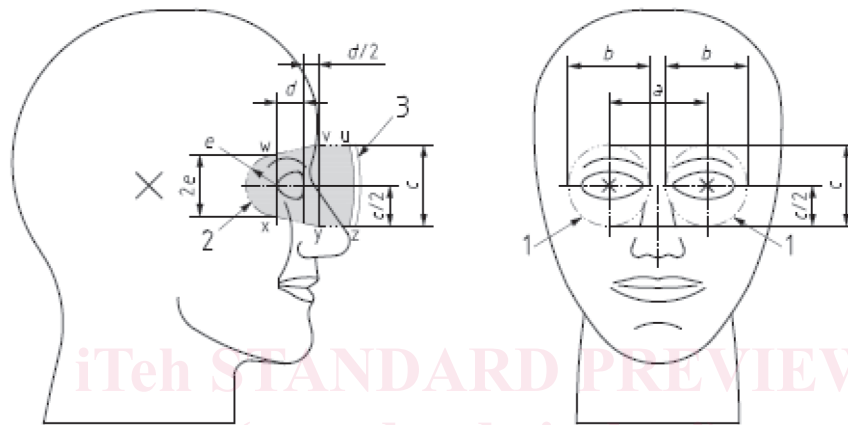
<sup>a</sup> Dimension  $a$  is the same as dimension  $D$  in ISO 18526-4:2020, Table 2 and Table 3.  
NOTE There are no dimensions available for headforms 2-C12.

## ISO 16321-1:2021/DAM 1:2022(E)

Dimensions see Figure 1	Headform						
	1-C12	1-S	1-M	1-L	2-S	2-M	2-L
$c$	26	30	33	35	27	29	33
$d$	8	9	12	13	7	8	9
$e$	10 mm around lateral canthus location				10 mm around lateral canthus location		

<sup>a</sup> Dimension  $a$  is the same as dimension  $D$  in ISO 18526-4:2020, Table 2 and Table 3.  
NOTE There are no dimensions available for headforms 2-C12.

Replace Figure 3 with the following Figure:



Replace the Key with the following:

**Key**

1 frontal eye protection zone

2 lateral eye protection zone

3 front surface of protector lens

\* corneal apices (centres of the ellipse)

+ lateral canthus

× resting point of the sides

$a-e$  as defined in Table 13.

7.1.1 Figure 3 – Title – Replace by the following:

**Figure 2 — Extended orbital protection zone (EOZ) — Minimum area to be protected [(impact level D (80 m/s)]**

Ronald queries – should the frontal protection area be shown as a circle?

7.1.1, Table 13

Replace by the following: