

---

**Ščitniki za oči in obraz za uporabo pri športu - 2. del: Zahteve za ščitnike za oči za skvoš in racquetball ter skvoš 57 (ISO 18527-2:2021)**

Eye and face protection for sports use - Part 2: Requirements for eye protectors for squash and eye protectors for racquetball and squash 57 (ISO 18527-2:2021)

Augen- und Gesichtsschutz für sportliche Anwendungen - Teil 2: Anforderungen an Augenschutzgeräte für Squash und Augenschutzgeräte für Racquetball und Squash 57 (ISO 18527-2:2021)

(standards.iteh.ai)

Protection des yeux et du visage à usage sportif - Partie 2: Exigences relatives aux protecteurs de l'oeil pour le squash et aux protecteurs de l'oeil pour le racquetball et le squash 57 (ISO 18527-2:2021)

**Ta slovenski standard je istoveten z: EN ISO 18527-2:2021**

---

**ICS:**

13.340.20	Varovalna oprema za glavo	Head protective equipment
97.220.30	Oprema za dvoranske športe	Indoor sports equipment
97.220.40	Oprema za športe na prostem in vodne športe	Outdoor and water sports equipment

**SIST EN ISO 18527-2:2021**

**en,fr,de**

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

[SIST EN ISO 18527-2:2021](https://standards.iteh.ai/catalog/standards/sist/aa7da85e-dda0-4ac2-a486-feacc052a61b/sist-en-iso-18527-2-2021)

<https://standards.iteh.ai/catalog/standards/sist/aa7da85e-dda0-4ac2-a486-feacc052a61b/sist-en-iso-18527-2-2021>

EUROPEAN STANDARD

EN ISO 18527-2

NORME EUROPÉENNE

EUROPÄISCHE NORM

September 2021

ICS 13.340.20; 97.220.30; 97.220.40

English Version

## Eye and face protection for sports use - Part 2: Requirements for eye protectors for squash and eye protectors for racquetball and squash 57 (ISO 18527- 2:2021)

Protection des yeux et du visage à usage sportif - Partie  
2: Exigences relatives aux protecteurs de l'oeil pour le  
squash et aux protecteurs de l'oeil pour le racquetball  
et le squash 57 (ISO 18527-2:2021)

Augen- und Gesichtsschutz für sportliche  
Anwendungen - Teil 2: Anforderungen an  
Augenschutzgeräte für Squash und Augenschutzgeräte  
für Racquetball und Squash 57 (ISO 18527-2:2021)

This European Standard was approved by CEN on 14 November 2020.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

<b>Contents</b>	<b>Page</b>
<b>European foreword.....</b>	<b>3</b>
<b>Annex ZA (informative) Relationship between this European Standard and the essential requirements of Regulation 2016/425 aimed to be covered.....</b>	<b>5</b>

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

[SIST EN ISO 18527-2:2021](https://standards.iteh.ai/catalog/standards/sist/aa7da85e-dda0-4ac2-a486-feacc052a61b/sist-en-iso-18527-2-2021)  
[https://standards.iteh.ai/catalog/standards/sist/aa7da85e-dda0-4ac2-a486-  
feacc052a61b/sist-en-iso-18527-2-2021](https://standards.iteh.ai/catalog/standards/sist/aa7da85e-dda0-4ac2-a486-feacc052a61b/sist-en-iso-18527-2-2021)

## European foreword

This document (EN ISO 18527-2:2021) has been prepared by Technical Committee ISO/TC 94 "Personal safety -- Personal protective equipment" in collaboration with Technical Committee CEN/TC 85 "Eye protective equipment" the secretariat of which is held by AFNOR.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by March 2022, and conflicting national standards shall be withdrawn at the latest by March 2022.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document has been prepared under a Standardization Request given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s) / Regulation 2016/425.

For the relationship with EU Directive(s) / Regulation(s), see informative Annex ZA, which is an integral part of this document.

Any feedback and questions on this document should be directed to the users' national standards body/national committee. A complete listing of these bodies can be found on the CEN websites.

The following referenced documents are indispensable for the application of this document. For undated references, the latest edition of the referenced document (including any amendments) applies. For dated references, only the edition cited applies. However, for any use of this document 'within the meaning of Annex ZA' the user should always check that any referenced document has not been superseded and that its relevant contents can still be considered the generally acknowledged state-of-art.

When an IEC or ISO standard is referred to in the ISO standard text, this shall be understood as a normative reference to the corresponding EN standard, if available, and otherwise to the dated version of the ISO or IEC standard, as listed below.

NOTE The way in which these referenced documents are cited in normative requirements determines the extent (in whole or in part) to which they apply.

Undated normative references in the ISO standard	Clause(s) of the ISO standard	Equivalent dated standard	
		EN	ISO or IEC
ISO 4007	Clause 2 & 3	EN ISO 4007:2018	ISO 4007:2018
ISO 8980-5	Clause 2 & 13.2	EN ISO 8980-5:2005	ISO 8980-5:2005
ISO 11664-2	Clause 2, 5.1, 5.6.4 & 5.6.5	EN ISO 11664-2:2011	ISO 11664-2:2007
ISO 18526-1	Clause 2	EN ISO 18526-1:2020	ISO 18526-1:2020
ISO 18526-2	Clause 2	EN ISO 18526-2:2020	ISO 18526-2:2020
ISO 18526-3	Clause 2	EN ISO 18526-3:2020	ISO 18526-3:2020
ISO 18526-4	Clause 2, 4.5 & 14.3	EN ISO 18526-4:2020	ISO 18526-4:2020
ISO 21987	Clause 2 & 7.2	EN ISO 21987:2017	ISO 21987:2017

**EN ISO 18527-2:2021 (E)**

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

**Endorsement notice**

The text of ISO 18527-2:2021 has been approved by CEN as EN ISO 18527-2:2021 without any modification.

**iTeh STANDARD PREVIEW  
(standards.iteh.ai)**

[SIST EN ISO 18527-2:2021](https://standards.iteh.ai/catalog/standards/sist/aa7da85e-dda0-4ac2-a486-feacc052a61b/sist-en-iso-18527-2-2021)

<https://standards.iteh.ai/catalog/standards/sist/aa7da85e-dda0-4ac2-a486-feacc052a61b/sist-en-iso-18527-2-2021>

## Annex ZA (informative)

### Relationship between this European Standard and the essential requirements of Regulation 2016/425 aimed to be covered

This European Standard has been prepared under a Commission's standardization request [Full reference to the request "M/571/C(2015) xxxx final"] to provide one voluntary means of conforming to requirements of Regulation 2016/425.

Once this standard is cited in the Official Journal of the European Union under that Regulation 2016/425 compliance with the normative clauses of this standard given in Table ZA.1 confers, within the limits of the scope of this standard, a presumption of conformity with the corresponding [essential] requirements of that Regulation 2016/425 and associated EFTA regulations.

**Table ZA.1 — Correspondence between this European Standard and Annex II of Regulation 2016/425 OJEU reference**

Essential Requirements of Regulation	Clause(s)/subclause(s) of this EN	Remarks/Notes
1.1.1 Ergonomics	4.5; 11	
1.1.2.1 Optimum level of protection	5.7; 5.8; 6; 7; 11; 12; 13	
1.1.2.2 Classes of protection appropriate to different levels of risk	5.2; 5.3; 5.4; 5.5; 5.6; 8.1; 8.2	
1.2.1 Absence of risks and other 'inherent' nuisance factors	4.2; 4.4	
1.2.1.1 Suitable constituent materials	4.4	
1.2.1.2 Satisfactory surface condition of all PPE parts in contact with the user.	4.2; 4.5	
1.2.1.3 Maximum permissible user impediment	4.5; 11	
1.3.1 Adaptation of PPE to user morphology	4.1; 4.5; 11	
1.3.2 Lightness and design strength	8, 9, 10	
1.4 Manufacturer's instructions and information	14	
2.1 PPE incorporating adjustment systems	4.5	
2.3 PPE for the face, eyes and respiratory system	5.2; 5.7; 5.8; 6; 7; 11; 12	

## EN ISO 18527-2:2021 (E)

2.9 PPE incorporating components which can be adjusted or removed by the use	4.2; 4.5	
2.12 PPE bearing one or more identification markings or indicators directly or indirectly relating to health and safety	14	
2.14 Multi risk" PPE	8; 10	
3.1.1 Impact caused by falling or ejected objects and collision of parts of the body with obstacle	8	
3.9.1 Non-ionising radiation	5.2; 5.3; 5.4; 5.5; 5.6; 5.7; 5.8; 9; 14	

**WARNING 1** — Presumption of conformity stays valid only as long as a reference to this European Standard is maintained in the list published in the Official Journal of the European Union. Users of this standard should consult frequently the latest list published in the Official Journal of the European Union.

**WARNING 2** — Other Union legislation may be applicable to the product(s) falling within the scope of this standard.

**ITeH STANDARD PREVIEW**  
**(standards.iteh.ai)**

[SIST EN ISO 18527-2:2021](https://standards.iteh.ai/catalog/standards/sist/aa7da85e-dda0-4ac2-a486-feacc052a61b/sist-en-iso-18527-2-2021)

<https://standards.iteh.ai/catalog/standards/sist/aa7da85e-dda0-4ac2-a486-feacc052a61b/sist-en-iso-18527-2-2021>



INTERNATIONAL  
STANDARD

ISO  
18527-2

First edition  
2021-03

---

---

**Eye and face protection for sports  
use —**

**Part 2:  
Requirements for eye protectors  
for squash and eye protectors for  
racquetball and squash 57**

iTeh STANDARD PREVIEW  
(standards.iteh.ai)

*Protection des yeux et du visage à usage sportif —*

*Partie 2: Exigences relatives aux protecteurs de l'œil pour le squash et  
aux protecteurs de l'œil pour le racquetball et le squash 57*

[https://standards.iteh.ai/catalog/standards/sist/aa7da85e-dda0-4ac2-a486-  
feacc052a61b/sist-en-iso-18527-2-2021](https://standards.iteh.ai/catalog/standards/sist/aa7da85e-dda0-4ac2-a486-feacc052a61b/sist-en-iso-18527-2-2021)



Reference number  
ISO 18527-2:2021(E)

© ISO 2021

## iTeh STANDARD PREVIEW (standards.iteh.ai)

[SIST EN ISO 18527-2:2021](https://standards.iteh.ai/catalog/standards/sist/aa7da85e-dda0-4ac2-a486-feacc052a61b/sist-en-iso-18527-2-2021)

<https://standards.iteh.ai/catalog/standards/sist/aa7da85e-dda0-4ac2-a486-feacc052a61b/sist-en-iso-18527-2-2021>



### **COPYRIGHT PROTECTED DOCUMENT**

© ISO 2021

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office  
CP 401 • Ch. de Blandonnet 8  
CH-1214 Vernier, Geneva  
Phone: +41 22 749 01 11  
Email: [copyright@iso.org](mailto:copyright@iso.org)  
Website: [www.iso.org](http://www.iso.org)

Published in Switzerland

# Contents

Page

<b>Foreword</b> .....	<b>v</b>
<b>Introduction</b> .....	<b>vi</b>
<b>1 Scope</b> .....	<b>1</b>
<b>2 Normative references</b> .....	<b>1</b>
<b>3 Terms and definitions</b> .....	<b>2</b>
<b>4 General requirements for eye protectors</b> .....	<b>2</b>
4.1 Physiological compatibility.....	2
4.2 Construction and adjustment.....	2
4.3 Cleaning and/or disinfection.....	3
4.4 Lens material and surface quality.....	3
4.5 Headform(s).....	3
4.6 Retention by headband and harnesses (sit and fit).....	3
4.7 Mandatory and optional requirements.....	3
<b>5 Transmittance of the lenses</b> .....	<b>3</b>
5.1 General.....	3
5.2 Transmittance categories.....	3
5.3 Solar ultraviolet transmittance.....	4
5.4 General transmittance requirements.....	4
5.4.1 Uniformity of luminous transmittance and transmittance matching.....	4
5.4.2 Variations due to thickness variations.....	5
5.5 Special transmittance requirements.....	5
5.5.1 Photochromic lenses.....	5
5.5.2 Polarizing lenses.....	5
5.5.3 Gradient-tinted lenses.....	5
5.6 Claimed transmittance and reflectance properties (optional requirements).....	5
5.6.1 General.....	5
5.6.2 Solar blue-light absorption/transmittance.....	5
5.6.3 Solar UV absorption/transmittance.....	6
5.6.4 Anti-reflective coated lenses.....	6
5.6.5 Reduced reflection coated lenses.....	6
<b>6 Scattered light</b> .....	<b>7</b>
<b>7 Refractive power</b> .....	<b>7</b>
7.1 Non-prescription eye protectors.....	7
7.1.1 Spherical and cylindrical power.....	7
7.1.2 Spatial deviation.....	7
7.1.3 Prism imbalance.....	7
7.2 Prescription eye protectors.....	7
<b>8 Mechanical strength</b> .....	<b>8</b>
8.1 Mechanical strength of squash eye protectors.....	8
8.2 Mechanical strength of racquetball and squash 57 eye protectors.....	8
8.3 Failure criteria after impact.....	8
<b>9 Resistance to solar ultraviolet radiation</b> .....	<b>9</b>
<b>10 Resistance to ignition</b> .....	<b>9</b>
<b>11 Field of view</b> .....	<b>9</b>
<b>12 Minimum area to be protected</b> .....	<b>10</b>
12.1 Assessment of frontal protection.....	10
12.2 Assessment of lateral protection.....	10
<b>13 Optional requirements</b> .....	<b>11</b>
13.1 Resistance to fogging.....	11

## ISO 18527-2:2021(E)

13.2	Resistance to abrasion.....	11
<b>14</b>	<b>Marking and information to be supplied by the manufacturer.....</b>	<b>11</b>
14.1	Assessment.....	11
14.2	Mandatory markings on eye protectors.....	12
14.3	Information to be supplied with each eye protector by the manufacturer.....	12
14.4	Additional information to be available from the manufacturer.....	13
<b>15</b>	<b>Selection of test samples.....</b>	<b>13</b>
15.1	General.....	13
15.2	Preparation and conditioning of test samples.....	13
<b>Annex A</b>	<b>(informative) Use of squash eye protectors and racquetball and squash 57 eye protectors.....</b>	<b>16</b>
<b>Annex B</b>	<b>(informative) Selection of squash eye protectors and racquetball and squash 57 eye protectors for prescription lens wearers.....</b>	<b>18</b>
<b>Bibliography</b>	.....	<b>19</b>

## iTeh STANDARD PREVIEW (standards.iteh.ai)

[SIST EN ISO 18527-2:2021](https://standards.iteh.ai/catalog/standards/sist/aa7da85e-dda0-4ac2-a486-feacc052a61b/sist-en-iso-18527-2-2021)

<https://standards.iteh.ai/catalog/standards/sist/aa7da85e-dda0-4ac2-a486-feacc052a61b/sist-en-iso-18527-2-2021>