



SLOVENSKI STANDARD
oSIST prEN ISO 18526-3:2018
01-julij-2018

Varovanje oči in obraza - Preskusne metode - 3. del: Fizikalne in mehanske lastnosti (ISO/DIS 18526-3:2018)

Eye and face protection - Test methods - Part 3: Physical and mechanical properties (ISO/DIS 18526-3:2018)

Augen- und Gesichtsschutz - Prüfverfahren - Teil 3: Physikalische und mechanische Eigenschaften (ISO/DIS 18526-3:2018)

Protection des yeux et du visage - Méthodes d'essai - Partie 3: Propriétés mécaniques (ISO/DIS 18526-3:2018)

Ta slovenski standard je istoveten z: prEN ISO 18526-3

ICS:

13.340.20 Varovalna oprema za glavo Head protective equipment

oSIST prEN ISO 18526-3:2018 en

DRAFT INTERNATIONAL STANDARD

ISO/DIS 18526-3

ISO/TC 94/SC 6

Secretariat: BSI

Voting begins on:
2018-05-18Voting terminates on:
2018-08-10

Eye and face protection — Test methods —

Part 3: Physical and mechanical properties

*Protection des yeux et du visage — Méthodes d'essai —**Partie 3: Propriétés mécaniques*

ICS: 13.340.20

THIS DOCUMENT IS A DRAFT CIRCULATED FOR COMMENT AND APPROVAL. IT IS THEREFORE SUBJECT TO CHANGE AND MAY NOT BE REFERRED TO AS AN INTERNATIONAL STANDARD UNTIL PUBLISHED AS SUCH.

IN ADDITION TO THEIR EVALUATION AS BEING ACCEPTABLE FOR INDUSTRIAL, TECHNOLOGICAL, COMMERCIAL AND USER PURPOSES, DRAFT INTERNATIONAL STANDARDS MAY ON OCCASION HAVE TO BE CONSIDERED IN THE LIGHT OF THEIR POTENTIAL TO BECOME STANDARDS TO WHICH REFERENCE MAY BE MADE IN NATIONAL REGULATIONS.

RECIPIENTS OF THIS DRAFT ARE INVITED TO SUBMIT, WITH THEIR COMMENTS, NOTIFICATION OF ANY RELEVANT PATENT RIGHTS OF WHICH THEY ARE AWARE AND TO PROVIDE SUPPORTING DOCUMENTATION.

This document is circulated as received from the committee secretariat.

ISO/CEN PARALLEL PROCESSING



Reference number
ISO/DIS 18526-3:2018(E)

© ISO 2018



COPYRIGHT PROTECTED DOCUMENT

© ISO 2018

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
Fax: +41 22 749 09 47
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

Contents

	Page
Foreword	vi
Introduction	vii
1 Scope	1
2 Normative References	1
3 Terms and Definitions	1
4 Preparatory information	2
5 General test requirements	2
6 Physical test methods	2
6.1 Physical inspection.....	2
6.1.1 Principle.....	2
6.1.2 Procedure.....	2
6.1.3 Test report.....	2
6.2 Field of view.....	3
6.2.1 Principle.....	3
6.2.2 Apparatus.....	3
6.2.3 Procedure.....	3
6.2.4 Test report.....	3
6.3 Area to be protected - assessment from the frontal direction.....	4
6.3.1 Principle.....	4
6.3.2 Apparatus.....	4
6.3.3 Procedure.....	4
6.3.4 Test report.....	4
6.4 Area to be protected - assessment from the lateral direction.....	4
6.4.1 Principle.....	4
6.4.2 Apparatus.....	4
6.4.3 Procedure.....	4
6.4.4 Test report.....	5
6.5 Retention by headbands and harnesses (Sit and Fit).....	5
6.5.1 Principle.....	5
6.5.2 Procedure.....	5
6.5.3 Test report.....	5
6.6 Visual assessment of material and surface quality of lenses.....	5
6.6.1 Principle.....	5
6.6.2 Apparatus.....	5
6.6.3 Procedure.....	6
6.6.4 Test report.....	6
6.7 Resistance to thermal exposure.....	6
6.7.1 Principle.....	6
6.7.2 Procedure.....	7
6.7.3 Test report.....	7
6.8 Resistance to ultraviolet radiation.....	7
6.8.1 Principle.....	7
6.8.2 Solar ultraviolet radiation.....	7
6.8.3 Ultraviolet radiation from artificial sources.....	9
6.9 Resistance to corrosion.....	9
6.9.1 Principle.....	9
6.9.2 Reagents and materials.....	9
6.9.3 Procedure.....	10
6.9.4 Test report.....	10
6.10 Resistance to ignition.....	10
6.10.1 Principle.....	10
6.10.2 Apparatus.....	10

ISO/DIS 18526-3:2018(E)

6.10.3	Procedure	10
6.10.4	Test report	11
6.11	Resistance to fogging of lenses or filters	11
6.11.1	Principle	11
6.11.2	Apparatus	11
6.11.3	Conditioning	12
6.11.4	Procedure	12
6.11.5	Test report	13
6.12	Protection against droplets	13
6.12.1	Principle	13
6.12.2	Reagents, material and apparatus	13
6.12.3	Procedure	13
6.12.4	Test report	14
6.13	Protection against streams of liquids	14
6.13.1	Principle	14
6.13.2	Reagents, materials and apparatus	14
6.13.3	Procedure	15
6.14	Protection against large dust particles	16
6.14.1	Test principle	16
6.14.2	Material and apparatus	16
6.14.3	Procedure	17
6.14.4	Test report	18
6.15	Protection against gases and fine dust	18
6.15.1	Principle	18
6.15.2	Apparatus	18
6.15.3	Procedure	18
6.15.4	Test report	19
6.16	Protection against radiant heat	19
6.16.1	Principle	19
6.16.2	Test apparatus	19
6.16.3	Preparation of the test sample	20
6.16.4	Procedure	20
6.16.5	Test report	21
6.17	Chemical resistance	21
6.17.1	Principle	21
6.17.2	Procedure	21
6.17.3	Test report	21
7	Mechanical test methods	21
7.1	Robustness	21
7.1.1	General	21
7.1.2	Minimum robustness of unmounted lenses	22
7.1.3	Drop ball test for unmounted lenses	24
7.1.4	Drop ball test for complete protectors	26
7.2	Ballistic impact test for complete protectors	27
7.2.1	Normal ambient temperatures	27
7.2.2	Extremes of temperature	28
7.3	High Mass Test for complete protectors	28
7.3.1	Normal ambient temperatures	28
7.3.2	Extremes of temperature	29
7.4	Resistance to surface damage due to flying fine particles	30
7.4.1	Principle	30
7.4.2	Material and apparatus	30
7.4.3	Preparation of reference samples for measurement of light scatter	32
7.4.4	Preparation of test samples	33
7.4.5	Procedure	33
7.4.6	Evaluation of narrow angle scatter of the test sample	33
7.4.7	Evaluation of wide angle scatter of the test sample	34
7.4.8	Test report	34

7.5	Penetration of vents.....	34
7.5.1	Principle.....	34
7.5.2	Apparatus.....	34
7.5.3	Procedure.....	35
7.5.4	Test report.....	35
7.6	Protection against molten metals and hot solids.....	35
7.6.1	Adherence of molten metal.....	35
7.6.2	Resistance to penetration of protector by hot solid.....	37
8	Marking and Packaging.....	38
8.1	Principle.....	38
8.2	Procedure.....	38
8.3	Test report.....	38
9	Information to be supplied by the manufacturer.....	39
9.1	Principle.....	39
9.2	Procedure.....	39
9.3	Test report.....	39
10	Additional test methods for protectors during welding and related techniques.....	39
10.1	Welding filters.....	39
10.1.1	Dimensions.....	39
10.2	Drop test of welding protectors.....	39
10.2.1	Principle.....	39
10.2.2	Apparatus.....	39
10.2.3	Preparation of test samples.....	40
10.2.4	Procedure.....	40
10.2.5	Test report.....	40
10.3	Light tightness of welding protectors.....	40
10.3.1	Principle.....	40
10.3.2	Procedure.....	40
10.3.3	Test report.....	40
10.4	Electrical insulation of welding helmets and welding hand shields.....	40
10.4.1	Principle.....	40
10.4.2	Procedure.....	41
10.4.3	Test report.....	41
11	Additional test methods for mesh protectors.....	41
11.1	Number of apertures in a mesh.....	41
11.1.1	Principle.....	41
11.1.2	Procedure.....	41
11.1.3	Test report.....	41
11.2	Contact with metal parts.....	41
11.2.1	Principle.....	41
11.2.2	Procedure.....	41
11.2.3	Test report.....	42
Annex A (normative) Application of uncertainty of measurement.....		43
Annex B (normative) Long wavelength pass filter.....		46
Annex C (informative) Full details of the apparatus for the streams of liquids test.....		48
Bibliography.....		50

ISO/DIS 18526-3:2018(E)

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

The committee responsible for this document is ISO/TC 94, *Personal safety — Personal protective equipment*, Subcommittee SC 6, *Eye and face protection*.

This document cancels and replaces the ISO 4855:1981 which has been technically revised.

A list of all parts in the ISO 18526- series can be found on the ISO website.