BS EN ISO 4892-2:2013+A1:2021

BSI Standards Publication

Plastics — Methods of exposure to laboratory light sources

Part 2: Xenon-arc lamps

bsi.

National foreword

This British Standard is the UK implementation of EN ISO 4892-2:2013+A1:2021. It is identical to ISO 4892-2:2013, incorporating amendment 1:2021. It supersedes BS EN ISO 4892-2:2013, which is withdrawn.

The start and finish of text introduced or altered by amendment is indicated in the text by tags. Tags indicating changes to ISO text carry the number of the ISO amendment. For example, text altered by ISO amendment 1 is indicated by ⟩A1⟨.

The UK participation in its preparation was entrusted to Technical Committee PRI/21, Testing of plastics.

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English Version

Plastics - Methods of exposure to laboratory light sources - Part 2: Xenon-arc lamps (ISO 4892-2:2013)

Plastiques - Méthodes d'exposition à des sources lumineuses de laboratoire - Partie 2: Lampes à arc au xénon (ISO 4892-2:2013)

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European foreword

This document (EN ISO 4892-2:2013) has been prepared by Technical Committee ISO/TC 61 "Plastics" in collaboration with Technical Committee CEN/TC 249 “Plastics” the secretariat of which is held by NBN.

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of an identical text or by endorsement, at the latest by September 2013, and conflicting national standards shall be withdrawn at the latest by September 2013.

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Endorsement notice

The text of ISO 4892-2:2013 has been approved by CEN as EN ISO 4892-2:2013 without any modification.

Foreword to amendment A1

This document (EN ISO 4892-2:2013/A1:2021) has been prepared by Technical Committee ISO/TC 61 "Plastics" in collaboration with Technical Committee CEN/TC 249 “Plastics” the secretariat of which is held by NBN.

This Amendment to the European Standard EN ISO 4892-2:2013 shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by February 2022, and conflicting national standards shall be withdrawn at the latest by February 2022.

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Endorsement notice

The text of ISO 4892-2:2013/Amd 1:2021 has been approved by CEN as EN ISO 4892-2:2013/A1:2021 without any modification.

Contents

Page

Foreword ... **iv**

1 Scope ... **1**

2 Normative references ... **1**

3 Principle ... **1**

4 Apparatus ... **2**
4.1 Laboratory light source ... 2
4.1.1 General ... 2
4.1.2 Spectral irradiance of xenon-arc lamps with daylight filters ... 2
4.1.3 Spectral irradiance of xenon-arc lamps with window glass filters ... 3
4.1.4 Irradiance uniformity ... 4
4.2 Test chamber ... 4
4.3 Radiometer ... 5
4.4 Black-standard/black-panel thermometer ... 5
4.5 Wetting and humidity-control equipment ... 5
4.5.1 General ... 5
4.5.2 Relative-humidity control equipment ... 5
4.5.3 Spray system ... 5
4.6 Specimen holders ... 5
4.7 Apparatus to assess changes in properties ... 6

5 Test specimens ... **6**

6 Exposure conditions ... **6**
6.1 Radiation ... 6
6.2 Temperature ... 6
6.2.1 Black-standard and black-panel temperature ... 6
6.2.2 Chamber air temperature ... 7
6.3 Relative humidity of chamber air ... 7
6.4 Spray cycle ... 7
6.5 Cycles with dark periods ... 7
6.6 Sets of exposure conditions ... 8

7 Procedure ... **9**
7.1 General ... 9
7.2 Mounting the test specimens ... 9
7.3 Exposure ... 9
7.4 Measurement of radiant exposure ... 9
7.5 Determination of changes in properties after exposure ... 9

8 Exposure report ... **9**

Annex A (informative) **Filtered xenon-arc radiation — Relative spectral irradiance** ... **10**

Annex B (normative) **Additional exposure cycles** ... **11**

〈A1〉 **Annex C** (informative) **Classification of daylight filters** ... **13**

Bibliography ... **16**

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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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ISO 4892-2 was prepared by Technical Committee ISO/TC 61, *Plastics*, Subcommittee SC 6, *Ageing, chemical and environmental resistance*.

This third edition cancels and replaces the second edition (ISO 4892-2:2006), which has been technically revised. It also cancels and replaces the Amendment ISO 4892-2:2006/Amd.1:2009.

ISO 4892 consists of the following parts, under the general title *Plastics — Methods of exposure to laboratory light sources*:

— *Part 1: General guidance*

— *Part 2: Xenon-arc lamps*

— *Part 3: Fluorescent UV lamps*

— *Part 4: Open-flame carbon-arc lamps*

INTERNATIONAL STANDARD **ISO 4892-2:2013+A1:2021**

Plastics — Methods of exposure to laboratory light sources —

Part 2: Xenon-arc lamps

1 Scope

This part of ISO 4892 specifies methods for exposing specimens to xenon-arc light in the presence of moisture to reproduce the weathering effects (temperature, humidity and/or wetting) that occur when materials are exposed in actual end-use environments to daylight or to daylight filtered through window glass.

Specimen preparation and evaluation of the results are covered in other International Standards for specific materials.

General guidance is given in ISO 4892-1.

NOTE Xenon-arc exposures of paints and varnishes are described in ISO 11341.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 4582, *Plastics — Determination of changes in colour and variations in properties after exposure to daylight under glass, natural weathering or laboratory light sources*

ISO 4892-1, *Plastics — Methods of exposure to laboratory light sources — Part 1: General guidance*

ISO 9370, *Plastics — Instrumental determination of radiant exposure in weathering tests — General guidance and basic test method*

3 Principle

3.1 A xenon arc, fitted with filters, is used to simulate the relative spectral irradiance of daylight in the ultraviolet (UV) and visible regions of the spectrum.

3.2 Specimens are exposed to various levels of light, heat, relative humidity and water (see 3.4) under controlled environmental conditions.

3.3 The exposure conditions are varied by selection of

a) the light filter(s);

b) the irradiance level;

c) the temperature during exposure to light;

d) the relative humidity in the chamber during light and dark exposures, when exposure conditions requiring control of humidity are used;

