



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 16422.2-2022

**Plastics - Methods of exposure to laboratory light sources -
Part 2: Xenon-arc lamps**

Issued on: April 15, 2022

Implemented on: November 1, 2022

Issued by: SAMR; SAC

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Foreword

This document was drafted as per the rules specified in GB/T 1.1-2020 Directives for Standardization - Part 1. Rules for the Structure and Drafting of Standardizing Documents. This Document is Part 2 of GB/T 16422 Plastics - Methods of Exposure to Laboratory Light Sources. GB/T 16422 has published the following parts.

- Part 1. General Guidance;
- Part 2. Xenon-Arc Sources;
- Part 3. Fluorescent UV Lamps;
- Part 4. Open Flame Carbon Arc Lamp.

This Document replaced GB/T 16422.2-2014 Plastics - Methods of Exposure to Laboratory Light Sources - Part 2. Xenon-Arc Sources. Compared with GB/T 16422.2-2014, the major technical changes of this Document are as follows besides the structural adjustments and editorial modifications.

- a) Add the statement about spectral irradiance "2nm incremental measurement" in footnote a of "Table 1" and footnote a of "Table 2" (see Tables 1 and 2 of this Edition);
- b) Add suggestions for measuring the maximum surface temperature device (see 5.4 of this Edition);
- c) Change the exposure cycle in Table 3; only retain the original three exposure cycles; delete two exposure cycles with a black standard temperature of $(100 \pm 3)^\circ\text{C}$ in Method A (see Table 3 of this Edition; Table 3 of 2014 Edition); and adjust the other three exposure cycles that do not control the temperature and relative humidity of the test chamber to Table B.1 (see Table B.1 of this Edition; Table 3 of 2014 Edition);
- d) Change the exposure cycle in Table 4; only retain the original three exposure cycles; delete the two exposure cycles with black panel temperature of $(89 \pm 3)^\circ\text{C}$ in Method A (see Table 4 of this Edition; Table 4 of 2014 Edition); and adjust the other three exposure cycles that do not control the temperature and relative humidity of the test chamber and

add the exposure cycles of the two Methods A to Table B.2 (see Table B.2 of this Edition; Table 4 of 2014 Edition);

e) Change the provisions on the setting of exposure conditions; and point out that there is no correlation between the black standard temperature and the black panel temperature and the conditions for the use of the black standard thermometer instead of the black panel thermometer (see 7.6 of this Edition; 6.6 of 2014 Edition);

f) Add the Annex "More Exposure Cycles" (see Annex B of this Edition).

This Document equivalently adopts ISO 4892-2:2013 Plastics - Methods of Exposure to Laboratory Light Sources - Part 2. Xenon-Arc Lamps.

This Document adds a Clause of "Terms and Definitions".

This Document made the minimum editorial modifications.

--- Incorporate the amendments of ISO 4892-2:2013/Amd.1:2021, and the outer margins of the terms involved are marked with vertical double lines (||).

Please note some contents of this Document may involve patents. The issuing agency of this

Document shall not assume the responsibility to identify these patents.

This Document was proposed by China Petroleum and Chemical Industry Federation.

This Document shall be under the jurisdiction of National Technical Committee on Plastics of

Standardization Administration of China (SAC/TC 15).

Drafting organizations of this Document. Guangzhou Synthetic Materials Research Institute Co., Ltd.; Shaanxi Yanchang Jingwei New Material Technology Industrial Park Co., Ltd.; Shandong Dawn Polymer Co., Ltd.; Orinko Advanced Plastics Co., Ltd.; Beijing Tiangang Auxiliary Co., Ltd.; Wanhua Chemical Group Co., Ltd.; Suzhou EMTEK Co., Ltd.; Atlas Material Testing Technology LLC.; Qingdao Hengjia Precision Technology Co., Ltd.; SAIC-GM-Wuling Automobile; Shenzhen NTEK Testing Technology Co., Ltd.; Suzhou Sunway Polymer Co., Ltd.; and Q-Lab Corporation Shanghai Office.

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The historical editions replaced by this Standard are as follows.

- It is first-time published as GB/T 9344-1988 in 1988;
- It is first-time revised as partial publication in 1999; this Document corresponds to GB/T 16422.2-1999; it is second-time revised in 2014;
- It is third-time revised hereby.

1 Scope

This Document specifies the test method for the exposure of specimens in the test equipment

equipped with xenon arc lamp, heat and humidity. The test equipment simulates the actual use

environment of total solar radiation or solar radiation through window glass, so that the material

produces effects similar to natural aging.

2 Normative References

The provisions in following documents become the essential provisions of this Document through reference in this Document. For the dated documents, only the versions with the dates

indicated are applicable to this Document; for the undated documents, only the latest version

(including all the amendments) is applicable to this Document.

ISO 4582 Plastics - Determination of Changes in Color and Variation in Properties after Exposure to Glass-Filtered Solar Radiation, Natural Weathering or Laboratory Radiation Sources

3 Terms and Definitions

For the purposes of this Document, the terms and definitions given in ISO 4892-1 apply.

4 Principles