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

GB/T 29759-2026

Replacing GB/T 29759-2013

Insulating solar photovoltaic (PV) glass units for buildings

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part

1. Structure and Drafting Rules of Standardization Documents". Drafting. This document replaces GB/T 29759-2013 "Solar Photovoltaic Insulating Glass for Buildings". Compared with GB/T 29759-2013, except for the structural... Aside from structural adjustments and editorial changes, the main technical changes are as follows:

- a) The "Accelerated Durability Test" has been changed to "Moisture Seal Durability Performance," and the requirements have been revised (see 6.1,.2013 version 6.1);
- b) Increased requirements and tests for light transmittance, insulation, wet leakage current, initial inert gas content, gas seal durability, and U-value. Methods and judgment rules (see 6.4, 6.6, 6.7, 6.11, 6.12, 6.13, 7.3, 7.5, 7.6, 7.10, 7.11, 7.12, 8.4.3, 8.4.4,...). 8.4.8, 8.4.9, 8.4.10);
- c) The maximum power requirement has been changed (see 6.5,.2013 version 6.5);
- d) The requirements for resistance to ultraviolet (UV) radiation have been changed (see 6.8, 6.6 in the.2013 edition);
- e) The dew point temperature requirements have been changed (see 6.9, 6.7 in the.2013 edition);
- f) The requirement for curvature has been removed (see

6.4 in the.2013 edition). Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents. This document was proposed by the China Building Materials Federation. This document is under the jurisdiction of the National Technical Committee on Standardization of Architectural Glass (SAC/TC255). This document was drafted by: Shenzhen Chuangyi New Materials Co., Ltd., Qinhuangdao Glass Industry Research and Design Institute Co., Ltd., and Luoyang Municipal Product... Quality Inspection and Testing Center, China Yangtze Power Co., Ltd., Shenzhen Institute of Standards and Technology, China Water Resources Pearl River Planning Survey and Design Co., Ltd. The company, Three Gorges Power Co., Ltd., Shandong Jinjing Technology Co., Ltd., Jingkun Energy Technology (Shenzhen) Co., Ltd., and Handan Zhongjiancai Optoelectronics Co., Ltd. Materials Co., Ltd., Guangdong Huaju Testing Technology Co., Ltd., Guangdong Yongguang New Energy Design Consulting Co., Ltd., Wuxi Inspection and Testing Certification Research Institute, Bengbu Architectural Design and Research Institute Group Co., Ltd., Gansu Natural Energy Research Institute, Shenzhen Guang Sheng Curtain Wall Technology Co., Ltd., Hunan Benan Yada New Materials Co., Ltd., Zhejiang Jinbei Energy Technology Co., Ltd., China

National Building Materials (Zhuzhou) Optoelectronic Materials Co., Ltd., and Shuifa Xingye Energy. Source (Zhuhai) Co., Ltd., Jiamusi Zhongjiancai Optoelectronic Materials Co., Ltd., Shenzhen Power Supply Bureau Co., Ltd., Shenzhen Institute of Metrology and Quality Inspection Institute, Anhui Fanxing Energy Technology Co., Ltd. The main drafters of this document are. Li Jiarui, Li Zhijian, Luo Yuanqing, Wang Jian, Yang Ge, Zhang Zhanwei, Zhang Hongwei, Xie Jun, Lü Tiangang, and Sun Chenghai. Ouyang Qunzhou, Pang Bo, Sun Yunlin, Li Chunwei, Wu Yimin, Li Xuwen, Cai Xiaolei, Huang Yanping, Pan Sheng, Xi Jintao, Huang Huanmin, Ling Jianxiang, Wang Yuying Wang Yagang, Yang Yidong, Cen Peixing, Zhou Shaobo, Sun Shulong, Dong Huazhan, Wu Hengyan, Zhang Ling, Sun Yang, Zuo Shouqiang, Zhang Zhihai, Xin Tuo, Wang Jing, Li Baojun Li Yingwen and Gan Yanjie. This document was first published in.2013, and this is its first revision. Building solar photovoltaic insulated glass

1.Scope This document specifies the classification, materials, requirements, test methods, inspection rules, packaging, marking, and transportation of solar photovoltaic insulating glass for buildings. Transportation and storage. This document applies to solar photovoltaic insulated glass for building applications; other applications of solar photovoltaic insulated glass may refer to this document for further information.

4 Classification

4.1 Classification by shape It is divided into flat solar photovoltaic insulated glass and curved solar photovoltaic insulated glass.

4.2 Classification by Photovoltaic Cell Based on the photovoltaic cells used in solar photovoltaic laminated glass, it can be divided into.

- a) Crystalline silicon cell type solar photovoltaic insulated glass. The solar photovoltaic laminated glass uses crystalline silicon cells, as shown in Figure 1;
- b) Thin-film battery type solar photovoltaic insulated glass. Solar photovoltaic laminated glass uses thin-film batteries, as shown in Figure 2.

5.Materials The following requirements should be met.

- a) Solar photovoltaic laminated glass meets the requirements of GB/T 29551-2023;
- b) The edge sealing material, spacer material, desiccant, and glass shall comply with the requirements of GB/T 11944-2025.

6 Requirements

6.1 General Rules The requirements, test methods, and judgment rules for flat-type solar photovoltaic insulated glass (hereinafter referred to as "flat-type products") shall comply with the corresponding provisions in Table 1. The terms and conditions stipulate that curved solar photovoltaic insulated glass (hereinafter referred to as "curved products") and solar

photovoltaic insulated glass with special requirements (hereinafter referred to as "curved products") are subject to the following provisions. (hereinafter referred to as "products with special requirements"), the requirements, test methods and judgment rules can be agreed upon by the supplier and the buyer.

6.2 Appearance Quality The appearance quality requirements of GB/T 11944-2025 should be met, and the solar photovoltaic laminated glass should meet the requirements of GB/T 29551-2023. Appearance quality requirements.

6.3 Dimensions and their tolerances

6.3.1 Permissible deviations in length and width The allowable deviations in length or width of flat products shall meet the requirements of Table

2. For curved products, the deviations shall be agreed upon by both the supplier and the buyer.

6.3.2 Thickness and its permissible deviations The allowable thickness deviation for flat products is $\pm 2.5\text{mm}$. The thickness deviation for curved products shall be agreed upon by the supplier and the buyer.

6.3.3 Difference between diagonals For rectangular flat products, the difference in diagonal length should not exceed 0.2% of the average diagonal length. For other shapes, the difference shall be agreed upon by the supplier and the buyer.

6.3.4 Permissible overlap The permissible overlap tolerance for flat products shall comply with the provisions of Table

3. The tolerance for bent products and products with special requirements shall be determined by the supplier and the buyer.

6.3.5 Width of Inner Sealant It should meet the requirements of 6.1.5 in GB/T 11944-2025.

6.3.6 Depth of outer sealant It should meet the requirements of 6.1.6 in GB/T 11944-2025.

6.3.7 Deviation in the position of the spacer bar It should meet the requirements of 6.1.7 in GB/T 11944-2025.

6.4 Light transmittance The light transmittance of solar photovoltaic insulating glass should be the product of the basic light transmittance and the ratio of the light-transmitting area, as agreed upon by both the supplier and the buyer. Require.

6.5 Maximum power After initial stabilization, the difference between the maximum power value and the initial value should be within $\pm 3\%$ of the initial value.