

ICS 81.040.20

CCS Q33



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

**GB/T 29551-2023**

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**Laminated solar photovoltaic (PV) glass in building**

建筑用太阳能光伏夹层玻璃

**Issued on: March 17, 2023**

**Implemented on: October 1, 2023**

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**Issued by: State Administration for Market Regulation;  
Standardization Administration of the PRC**

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## Foreword

This document was issued on 17 March 2023 by the State Administration for Market Regulation; Standardization Administration of the PRC and takes effect on 1 October 2023.

It is a GB/T standard: recommended rather than compulsory, but it is the text a Chinese reviewer applies when assessing a submission.

## 1 Scope

GB/T 29551-2023 covers laminated glass with photovoltaic cells sealed between the plies when it is built into a facade, a canopy or a roof light and generates power there. Clause 4 fixes the materials: the outer and inner glass, the cells, the interlayer, the busbars, the insulating tape, the termination and the edge sealing agent. Clause 5 then sets two families of requirements that have to hold at the same time. As glazing, the panel is judged on appearance, dimensional tolerance, curvature, static and cyclic mechanical load, wind pressure, hail, heat resistance, and the ball drop and shot bag impact tests that decide whether it stays in the opening and how it breaks. As a generator, it is judged on insulation, wet leakage current, bypass diode performance, hot spot durability, termination stress and the ageing sequences - outdoor exposure, ultraviolet radiation, heat cycling, humidity and frost, damp heat. Clause 6 gives the test methods and the order they run in, clause 7 the exit-factory and type inspection with sampling and judgment rules, and clause 8 packaging, marking, transport and storage. The double duty is the point: a delaminating interlayer or a wet termination turns a working panel into a fall hazard overhead or a live surface within reach. Written for glass processors, module makers, facade contractors, laboratories and building control.

This document specifies the materials, technical requirements, test methods, inspection rules, packaging, labeling and marking, transportation and storage of laminated solar photovoltaic glass for buildings.

This document applies to laminated solar photovoltaic glass for building integrated photovoltaics (BIPV).

## 2 Normative references

The contents of the following documents constitute essential clauses of this document through normative references in the text. Among them, for reference documents with dates, only the versions corresponding to the dates apply to this document; for reference documents without dates, the latest versions (including all amendments) apply to this

document.

GB/T 1216 External micrometer

GB/T 9056 Metal ruler

GB 11614 Flat glass

GB 15763.1 Safety glazing materials in building -- Part 1: Fire-resistant glass

GB 15763.2 Safety glazing materials in building -- Part 2: Tempered glass

GB 15763.3 Safety glazing materials in building -- Part 3: Laminated glass

GB 15763.4 Safety glazing materials in building -- Part 4: Heat soaked thermally tempered glass

GB/T 17841 Heat strengthened glass

GB/T 21389 Vernier, dial and digital display calipers

GB/T 34328 Light weight thermally strengthened glass

GB/T 37825 Test method for simulating wind pressure resistance of building glass under the uniform static loads

## 4 Materials

### 4.1 Glass

The outer glass facing the sunlight can be made of flat glass with high transmittance, tempered glass, semi-tempered glass, homogeneous tempered glass, lightweight physical tempered glass, curved glass, fireproof glass, and anti-reflection film glass for solar photovoltaic modules. The inner glass can be made of flat glass, tempered glass, homogeneous tempered glass, lightweight physical tempered glass, semi-tempered glass, glazed tempered, glazed semi-tempered glass, curved glass, fireproof glass. Flat glass shall comply with the provisions of GB 11614; tempered glass shall comply with the provisions of GB 15763.2; semi-tempered glass shall comply with the provisions of GB/T 17841; homogeneous tempered glass shall comply with the provisions of GB 15763.4; lightweight physically strengthened glass shall comply with the provisions of GB/T 34328; glazed tempered and glazed semi-tempered glass shall comply with the provisions of JC/T 1006; fireproof glass shall comply with the