
Solar glass with 55 light transmittance

Do glass materials transmit the full solar spectrum?

Firstly, the transmittance of the full solar spectrum by commonly used glass materials in buildings was investigated, and the transmittance characteristics of five glass materials to the solar spectrum by different wavelengths were discussed, and then the transmittance model are established.

How is spectral transmittance measured?

Examples of Film Measurements The spectral transmittance is obtained by measuring the transmittance of 3 mm-thick glass with film attached to one face. For these tests, we determined the visible light transmittance, UV transmittance, solar transmittance, solar reflectance, and shading coefficients for four types of film adhered to glass.

What is the transmittance of a single clear glass?

The transmittance of a single clear glass in the visible range (380-780 nm) is approximately 90%, as illustrated in Fig. 1 (b). Traditional windows with both high SHGC and visible light transmittance (τ_{vis}) are often the reasons for overheating and glare issues (Tällberg et al., 2019).

Which spectral transmittance models are provided in percentage form?

Therefore, in addition to the transmittance models for different wavebands, the transmittance of visible light and the complete solar spectrum at an inclination angle of 0° are provided in percentage form for use (Table 6). Table 6. Spectral transmittance of different glass materials. Table 7.

Secondly, the solar radiation transmittance at different wavelengths is tested by considering both the glass material and the inclination angle, and a solar radiation ...

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The study also focuses on the 300 nm-1100nm waveband and establishes a solar radiation transmittance benchmark model (SRTB model) based on single-pane clear glass.

The light transmittance and light reflectance factors are the ratios of the transmitted or reflected light flux to the incident light flux. The tables at the end of chapter 2 ...

This paper quantifies experimentally the effect of pendant droplets condensed on the back of semi-transparent glass panes on their normal-hemispherical transmittance and ...

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