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SolarInnovate Energy Solutions

High reflective glaze for photovoltaic glass

Overview

Which glass ink should be used for photovoltaic glass backboards?

The higher the reflectivity of the glass ink, the higher the solar reflection efficiency, and in turn, the higher the photoelectric conversion efficiency of the solar cell. The reflectance of glass inks for photovoltaic glass backboards should be greater than 80%. Therefore, BS-4 and BS-5 reach the requirements for commercial use.

Can BZS glass be used for photovoltaic backplanes?

To the best of our knowledge, BZS glass has not been applied to white glass inks for photovoltaic backplanes. The thermal expansion coefficient of the photovoltaic glass backplanes is about 90 × 10 −7 / °C, and the tempering temperature range is 680 - 720 °C.

What type of ink is used in Photovoltaic Glass backplanes?

A white glass ink used in the photovoltaic glass backplanes is generally composed of low-melting glass powder, titanium dioxide with rutile crystalline structure, and varnish. The content of titanium dioxide accounted for more than 40% of the total solid, much higher than a typical colored glass ink (below 25% TiO2).

Can B2 O 3 -ZnO-SIO 2 LMG be used in high reflective white glass ink?

In summary, the application of B 2 O 3 -ZnO-SiO 2 LMG in high reflective white photovoltaic glass ink was studied for the first time. The reflectance of BS-4 and BS-5 glass inks are greater than 80%, which meet the requirements of photovoltaic glass backplane for high reflective white glass ink.

What is the thermal expansion coefficient of Photovoltaic Glass backplane?

The thermal expansion coefficient of the photovoltaic glass backplanes is about 90 × 10 −7 / °C, and the tempering temperature range is 680 - 720 °C. The tempering temperature required is suitable for considering BZS glass

system for white glass ink in the photovoltaic backplane application.

What is the reflectance of BS-4 and bs-5 glass ink?

The reflectance of BS-4 and BS-5 glass inks are greater than 80%, which meet the requirements of photovoltaic glass backplane for high reflective white glass ink. The results show that T g and T f decrease nonlinearly with the decrease of B/Zn ratio in BZ series, but on the contrary in BS series.

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