

Alternatives to antimony in solar glass





Overview

Should antimony-free glass be used in New solar panels?

“ROSI advocates for antimony-free glass in new solar panels installed in Europe, notably through the Ecolabel directive, as it opens more doors for recycling,” he explained.

Does solar glass contain antimony?

However, the composition of solar glass varies, especially concerning antimony (Sb) content, depending on the production method. Antimony is used to enhance the performance of patterned solar glass but introduces environmental and health concerns, complicating recycling efforts.

Can you recycle solar glass with antimony?

This makes recycling solar glass with antimony both costly and technically challenging. Transporting glass cullets (crushed glass ready for recycling) also presents a logistical challenge, as their low density makes transport costly and inefficient. What is the regulatory support for solar glass recycling?

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How can the US reduce antimony levels in solar glass?

The U.S. could also implement a threshold for antimony levels in solar glass, gradually reducing the allowable amount over time. This would encourage manufacturers to phase out the use of antimony in their production processes and facilitate more straightforward recycling in U.S. facilities.



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[Release: ESIA Recommendation Paper Addressing uncertain antimony](#)

Oct 6, 2023 · However, the composition of solar glass varies, especially concerning antimony (Sb) content, depending on the production method. Antimony is used to enhance the performance ...

[Addressing uncertain antimony content in solar glass for ...](#)

Nov 7, 2023 · Glass accounts for a significant proportion of PV module weight, making glass recycling an environmentally beneficial process due to reduced CO2 emissions and energy ...



[Homerun Resources Inc. Announces Future Production of 100% Antimony](#)

Oct 21, 2025 · The ability to supply 100% antimony-free solar glass positions Homerun Resources as a market leader delivering both superior performance and uncompromising health and ...



[Environment Friendly Solar Glass From Interfloat](#)

Jul 26, 2023 · India headquartered solar glass manufacturer Borosil Renewables Ltd (BRL) has announced the launch of what it terms as the world's 1st antimony-free low-iron textured solar



...



[Solar recycling's glass ceiling - pv magazine International](#)

Sep 21, 2024 · "ROSI advocates for antimony-free glass in new solar panels installed in Europe, notably through the Ecolabel directive, as it opens more doors for recycling," he explained.



[Guide for Ensuring Solar Glass Recycling Happens for Your ...](#)

2 days ago · A significant portion of framed silicon-based solar panel waste is glass, approximately 67-76%. Ensuring effective recycling of this glass is not only crucial for ...



[How can we adapt to geological scarcity of antimony?](#)

Mar 1, 2016 · In this respect we use the following terminology: (1) very poor: antimony can be adequately substituted by alternatives in 0-20% of the uses, (2) poor: antimony can be ...





Exploring antimony material flow in the context of energy ...

Aug 1, 2025 · Antimony is critical for clean energy technologies but is one of the scarcest mineral resources. The limitations of alternative materials, such as the deterioration of flame retardant ...



Necessity for recycling photovoltaic glass: Managing ...

The same study also reported that antimony trioxide leaches from solar glass after prolonged contact with water and subsequently undergoes hydrolysis, forming the antimony oxo anion ...

OPTIMIZING SUSTIANABILITY: BALANCING ANTIMONY ...

Mar 26, 2025 · Glasses with high and low antimony content show similar transmission and reflection properties, while the glass without antimony shows a significant decrease in ...



Firebrake ZB: An alternative to antimony oxide

Nov 14, 2025 · An alternative to antimony oxide
The use of antimony oxide (also referred as antimony trioxide or ATO) as a synergistic additive to enhance fire retardancy is very well ...



NoSbEra Antimony Free Solar Glass

Borosil has developed NoSbEra: World's first Antimony-free solar glass. The world is staring at a burning issue of the most hazardous substance "Antimony" present in solar glass. Antimony in ...



Antimony-Free Solar Glass , British Glass

Antimony is a highly toxic element, present at remote locations in our planet, and is used in some glasses to enhance its optical performances. Antimony is not present in common glasses, ...

Establishing design principles for functional additives in antimony

Feb 5, 2025 · Abstract Antimony chalcogenide solar cells are a promising thin-film solar technology, offering a tunable bandgap, high intrinsic stability, and a large absorption ...



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