

December 27, 2010

AGC Starts Sales of Lead-Free and Environmental-Friendly Glass Powder for Electrodes on Solar Cells

AGC Asahi Glass Co., Ltd.

AGC (Asahi Glass Co., Ltd.; Head Office: Tokyo; President and CEO: Kazuhiko Ishimura) announces that the company will start sales of new lead-free glass powder for electrodes on crystal silicon solar cells. In the midst of increasing worldwide concerns about environmental issues, this product can respond to various environmental regulations as represented by the RoHS Directive. AGC aims to capture a 40% share of this promising market which is expected to grow into a 3 billion-yen market in 2015.

An electrode of crystal silicon solar cell is manufactured through firing process after applying metallic paste including aluminum or silver on the silicon substrate. Glass powder is used as a key material in the production as it determines important features of solar cells. Generally, a few percentage of glass powder is added into metallic paste to improve adhesion between metal and silicon, electric characteristics, durability and bowing of silicon substrates after firing process. For materializing such characteristics, however, lead-containing glass has been used.

Based on the glass composition design, milling and evaluative analysis technologies that AGC has developed over years, AGC has been developing lead-free glass powder with various composition designs. This time, as the first commercialized product in the product line, AGC will launch glass powder with bismuth series composition into the market. This product shows significantly higher acid resistance, which is a critical feature for the manufacturing of electrodes for solar cells, than the existing lead-containing glass. The characteristics of the product are described as follows.

Composition: Bismuth series glass (lead-free)

Grain diameter: 1 μ m or less

Softening point: 450°C~600°C

Acid resistance: Twice as much or more when compared with lead-containing glass

AGC has already been offering various photovoltaic materials in the market. Leveraging our technological expertise accumulated through the commercialization of display glass products which are free of lead, arsenic and antimony, we will develop environmental-friendly and high-performance products and contribute to the sustainable society.

End

©Inquiries: Toshihiro Ueda, General Manager, Corporate Communications & Investor Relations,
AGC Asahi Glass Co., Ltd.

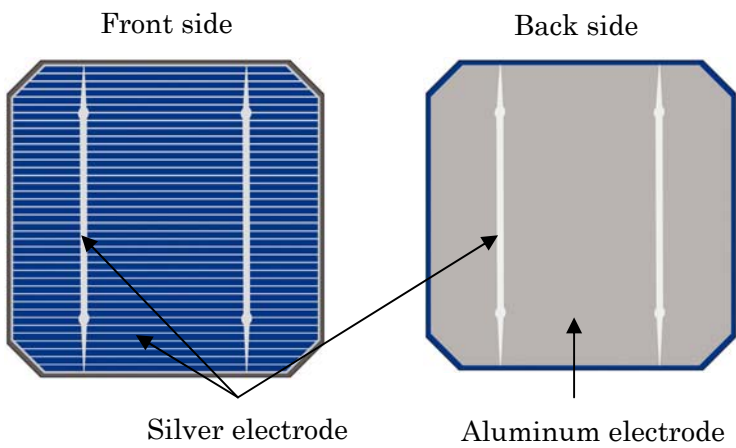
(Contact: Masahiko Tobari; Tel: +81-3-3218-5509; E-mail: info-pr@agc.com)

< Reference >

1. Glass powder



2. Structure of electrode on crystal silicon solar cell



3. Solar cell related materials provided by AGC

