For Solar and PV Applications, Shin-Etsu Chemical Introduces New Materials for Both Cell Processing and Installation Modules

For both thin film applications and installation modules, Shin-Etsu products can be customized for specific solar and PV requirements

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Shin-Etsu Chemical, one of the world's largest suppliers of semiconductor materials, has introduced a range of products specifically designed for the PV (photovoltaic) and solar marketplace.

PBN Crucibles and Boats

For thin film solar cell device manufacturing, Shin-Etsu now offers customized PBN (Pyrolytic Boron Nitride) crucibles, boats and other products for copper, indium, gallium and selenide (CIGS) film deposition processes. Both PBN coated graphite and pure PBN parts offer high purity and stability with very limited outgassing. These ceramic parts are high heat and thermal shock resistant with excellent thermal insulation. PBN is chemically stable and non-toxic. It is resistant to oxidation while impurities are almost non-detectable.

Shin-Etsu also offers PBN/PG (Pyrolytic Graphite) heaters and PBN coated graphite heaters for application specific solar requirements.

Potting Materials for Junction Boxes

Shin-Etsu Chemical's new silicone-based potting materials weatherproof solar panel junction boxes, protecting the valuable electronics encapsulated inside. These materials quickly cure at room temperature and after curing, make the junction box both corrosion and moisture proof. Other benefits include: superior adhesion (no reversion or delamination), high dielectric breakdown strength (for better voltage control), and excellent repairability.

Sealing Materials for Solar Panel Frames and Junction Boxes

Shin-Etsu sealing materials, for sealing either the junction box or the PV panel to the frame, offer superior lap shear strength, fast tack-free/skin-over cure, color and clarity stability and cohesion both before and after curing.

Double Stick Thermal Tape

Shin-Etsu double stick thermal tape for thermal diffusion of the substrate on the back sheet of the solar module helps increase the overall efficiency of the module. Once applied, the tape offers superior handling, high peeling-shear strength and can be easily reworked.

These materials have been introduced to the European and Asian marketplaces and are now available to the US market through Shin-Etsu MicroSi in Phoenix, Arizona. All the

materials adhere to IEC (International Electrotechnical Commission) design and safety standards.

About Shin-Etsu

Shin-Etsu Chemical Co., Ltd., the Tokyo based chemical company, is the world's largest supplier of semiconductor materials, semiconductor silicon, PVC resin, synthetic quartz glass and methylcellulose and is a major producer of materials including silicones and rare earth magnets. Shin-Etsu Chemical's stock (TSE: 4063) is listed on three markets: The Tokyo, Osaka and Nagoya Exchanges in Japan. http://www.shinetsu.co.jp

Shin-Etsu MicroSi Inc. is a wholly owned subsidiary of Shin-Etsu Chemical Co., Ltd. With its headquarters in Phoenix, Arizona, Shin-Etsu MicroSi provides high performance products and materials, specifically designed to address today's photolithography, packaging, solar and flexible printed circuit requirements. www.microsi.com

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