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PRESS RELEASE

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EUROPEAN PHOTOVOLTAIC SOLAR ENERGY CONFERENCE
WACKER Showcases an Innovative Thermoplastic Encapsulant for Solar Modules

Munich, July 22, 2009 – WACKER, the Munich-based chemical company, will be using the 24th European Photovoltaic Solar Energy Conference and Exhibition to present a new thermoplastic encapsulant for the manufacture of photovoltaic modules. The silicone-based elastic polymer sheet is thermoformable and therefore fast and easy to process. Available under the trade name TECTOSIL®, the sheet's range of properties make it far superior to conventional encapsulants. TECTOSIL® provides sensitive solar cells with effective and long-lasting protection against mechanical and chemical stresses. It is non-corrosive and can be used with any type of module. The 24th European Photovoltaic Solar Energy Conference takes place from September 21 – 24, 2009, in Hamburg, Germany.

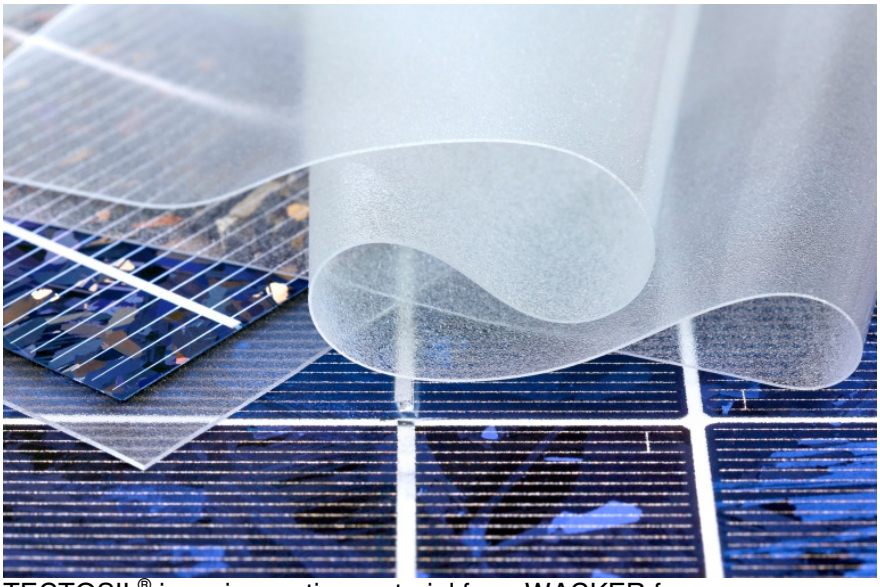
TECTOSIL® is a flexible, highly transparent and electrically insulating sheet comprising a silicone-organo copolymer. Because of its thermoplastic properties, this silicone-based polymer can be processed quickly and inexpensively – without curing or chemical reactions. This is what sets TECTOSIL® apart from conventional encapsulants. The lamination process thus benefits from short

production cycles and a high tolerance to local temperature differences within the laminator.
TECTOSIL® sheets help to lower manufacturing costs and ensure that modules are produced in consistently high quality.

Solar cells encapsulated in TECTOSIL® are afforded optimum protection against mechanical and chemical stresses. The material bonds the components of a PV module into a stable laminate. Since it is highly elastic and extremely flexible across a very large temperature range, TECTOSIL® can compensate the different thermal expansions of the laminate materials.
In this way, TECTOSIL® ensures that the solar cells are encapsulated without stress.

This novel polymer also has the advantage of being chemically stable, which means there is no risk of clouding, yellowing or the like. The sheet does not contain catalysts or corrosive substances. On contact with moisture, it does not produce any substances that might initiate corrosion or damage surfaces. That allows the sheet to be used for encapsulating solar cells containing films of compound semiconductors (e.g. copper indium gallium diselenide or cadmium telluride), or other highly sensitive chemical substances – such as transparent conductive oxides. The material absorbs hardly any water at all, poses an effective moisture barrier and stays permanently electrically insulating. Thanks to the unique properties of TECTOSIL®, modules can produced with high quality and a long service life.

TECTOSIL® is a non-reactive, easy-to-handle material. It does not need to be cooled during transportation and storage. Modules produced with the new encapsulant have passed all the tests required by IEC 61215. The material can be used to make any type of module and is suitable for either vacuum laminators or continuous processes. As a result, TECTOSIL® paves the way for new processing techniques.



TECTOSIL® is an innovative material from WACKER for encapsulating photovoltaic modules. The sheet is a silicone-based thermoplastic. Transparent and non-yellowing, this material helps achieve high module efficiency and provides lasting protection of all solar module types (Photo: Wacker Chemie AG).

Note:

You can download this picture at:
http://www.wacker.com/pressreleases

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The company in brief:
WACKER is a globally active chemical company with some 15,900 employees and annual sales of around €4.3 billion (2008).
WACKER has 27 production sites and over 100 sales offices worldwide.

WACKER SILICONES
Silicone fluids, emulsions, rubber and resins; silanes; pyrogenic silicas; thermoplastic silicone elastomers

WACKER POLYMERS
Polyvinyl acetate and vinyl acetate copolymers in the form of dispersible polymer powders, dispersions and solid resins used as binders for construction chemicals, coatings, adhesives, paints, plasters and nonwovens

WACKER FINE CHEMICALS
Fine chemicals, biologics and other biotech products, such as cyclodextrins and cysteine

WACKER POLYSILICON
Polysilicon for the semiconductor and photovoltaics industries; solar wafers

Siltronic
Hyperpure silicon wafers and monocrystals for semiconductor devices