

DuPont Press Kit

SOLAR POWER INTERNATIONAL
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ANAHEIM, CALIFORNIA

Energy for a Thriving World

DuPont Photovoltaic Solutions connects science from across the company on a global scale to help support the dramatic growth in the photovoltaic (PV) industry. We offer a broad and growing portfolio of innovative materials and technologies, with more than 25 years of experience in PV materials development, applications know-how, manufacturing expertise and global market access. DuPont is helping to transform the sun's power into clean, efficient energy the world needs to thrive.



The miracles of science™





DuPont Photovoltaic Solutions Overview

Energy for a Thriving World

DuPont Photovoltaic Solutions (DPVS) is developing a broad and growing portfolio of materials and technology solutions, designed to work together to increase the efficiency and lifetime of crystalline silicon and thin film photovoltaic solar modules.

Table of Contents

2009 News Highlights Summary

Media Resources

Fact Sheet – DuPont Photovoltaic Solutions

Recent News Releases:

- **DuPont and Silicon Energy Announce First Glass-Glass Photovoltaic Modules Made with DuPont(tm) PV5300 Series Encapsulant**
- **DuPont Teijin Films™ Introduces Mylar® and Melinex® Polyester Films with Enhanced Weatherability**
- **DuPont Widens Its Offering of UL-Recognized Photovoltaic Encapsulants**
- **DuPont and Applied Materials Collaborate to Boost Solar Cell Efficiency**
- **Oerlikon Adds DuPont™ PV5215 Photovoltaic Encapsulant Sheet to Approved List**
- **DuPont Microcircuit Materials Introduces Solamet® PV173 Photovoltaic Metallization Paste**
- **DuPont Microcircuit Materials Introduces New Solamet® PV412 Photovoltaic Metallization for Thin Film Solar Technologies**
- **DuPont to Invest \$120 Million to Increase Capacity for Tedlar® Photovoltaic Module Materials**

Solar Power International 2009

Coming out of the economic downturn, DuPont Photovoltaic Solutions (DPVS) is supporting growth in the industry by launching new products, investing in manufacturing capacity, and collaborating with leading companies throughout the value chain to accelerate materials technology better and faster. Our aim is to increase the efficiency and lifetime of crystalline silicon and thin film photovoltaic solar modules, reduce overall system costs, and enable the PV industry to reach grid parity faster.

Here are a few very recent highlights:

- Silicon Energy, LLC and DuPont Photovoltaic Solutions announce the world's first glass-glass polycrystalline silicon (cSi) photovoltaic (PV) power-generating modules made with advanced DuPont(tm) PV5300 Series ionomer-based encapsulant for added module strength and durability.
- DuPont Teijin Films™ is announcing the first in a series of Mylar® and Melinex® polyester films with enhanced “weatherability” and durability performance.
- DuPont™ Elvax® EVA resins for photovoltaic (PV) module encapsulation are now joined by two additional PV encapsulants recognized by Underwriters Laboratory (UL): DuPont™ PV5200 Series PVB-based sheets and DuPont™ PV5300 sheets, based on ionomer technology.
- DuPont and Applied Materials, Inc. announced a collaboration to advance multiple printing technology that is expected to increase the absolute efficiency of crystalline silicon photovoltaic solar cells by more than 0.5 percent, according to program estimates. By increasing the efficiency and yield of solar cells and modules, PV power can become more cost effective versus other forms of energy.
- Oerlikon has added DuPont™ PV5215 photovoltaic encapsulant sheet to its approved list. DuPont Photovoltaic Solutions is displaying an Oerlikon Solar thin film photovoltaic (PV) module made with DuPont™ PV5215 PVB-based encapsulant at the show. The encapsulant can now be used in modules carrying Oerlikon Solar's master certification from TÜV Rheinland, who provide international testing and certification services for crystalline silicon and thin-film module technologies.
- DuPont™ Solamet® PV173 photovoltaic (PV) metallization paste is a new lead-free* front side material for crystalline silicon solar cells. With its high performance and superior environmental properties, Solamet® PV173 is targeted to PV cell and module manufacturers who are seeking technologies with a significantly reduced environmental footprint.
- DuPont™ Solamet® PV412 photovoltaic (PV) metallization paste is the latest in a line of silver conductor materials specifically developed for use in thin film PV technologies where a Transparent Conductive Oxide is utilized.
- DuPont recently provided further details of a multi-phase production expansion for its high-performance DuPont™ Tedlar® polyvinyl fluoride (PVF) product line. This phase of the expansion represents more than \$120 million in investment which increases, by over 50 percent, the capacity of monomer and resin used in producing Tedlar® films.

* “Lead free” as used herein means that lead is not an intentional ingredient in and is not intentionally added to the referenced products. Trace amounts however may be present.



MEDIA RESOURCES

For downloadable digital media files and images, or for more information on our entire portfolio of materials and technologies shown this year at Solar Power International 2009, please visit: our on-line press room at:

http://www2.dupont.com/Photovoltaics/en_US/news_events/pressroom.html

Interviews

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DuPont Photovoltaic Solutions

DuPont is a leading technology supplier to the photovoltaic (PV) industry, with more than 25 years of experience in PV materials development, applications know-how, manufacturing expertise and global market access. DuPont Photovoltaic Solutions (DPVS) represents a broad and growing portfolio of innovations for the industry, developed by leveraging science from across the company, and working closely with strategic partners across the value chain. DPVS offerings are designed to increase the lifetime and efficiency of solar modules, and improve the productivity of PV module makers.

Our products are key to the manufacture of both crystalline silicon and thin film solar cells and modules. They include films, resins, encapsulation sheets, flexible substrates and photovoltaic metallizations, as well as high performance seals for solar cell manufacturing equipment, wet-etch additives for semiconductor texturing, and metallic sodium.

We continue to invest in both capacity expansions to support the explosive industry growth, and the development of new innovative technologies to address different applications within the industry.

DuPont has also made a corporate commitment to have at least ten percent of its power produced by renewable energy sources by 2010, some of which will be supplied through the installation of systems with solar generation. Today, more than five percent of the company's power is produced by renewable energy sources. DuPont has installed photovoltaic solar power systems for its R&D and business facilities in Wilmington, Del., Taoyuan, Taiwan, and Kauai, Hawaii, and is planning additional installations as examples of DuPont science and innovation enabling businesses and consumers to convert sunlight



directly into electricity. DuPont's largest PV solar installation at its Pioneer Hi-Bred Waimea Research Center in Kauai, Hawaii is comprised of 1,500 panels and is projected to generate 404,977 kilowatt hours (kwh) annually, offsetting 55% of the facility's electrical usage.

The company's offering for this market provides innovative business solutions to help meet the growing demand for renewable energy technology. Through science and technology, innovative technologies from DuPont enable solar modules to run more efficiently, last longer and provide safer and more environmentally sustainable solutions,

making solar possibilities into everyday realities, to provide energy for a thriving world.

Facts about DuPont Businesses that Provide Materials to the Global PV Solar Industry:

- Seven DuPont businesses provide products for the Photovoltaic offering: Photovoltaic Fluoromaterials, Electronic Technologies, Packaging & Industrial Polymers, Engineering Polymers, DuPont Performance Elastomers, DuPont Teijin Films, and DuPont Chemical Solutions Enterprise.
- DuPont has research sites in the U.S., Switzerland, Japan, China, Taiwan, India, Belgium, and the U.K.
- DuPont has been at the forefront of innovation in the PV industry since its inception more than 25 years ago. Many of DuPont's products have set the industry standard and continue to lead with consistent high quality and proven performance.
- According to DuPont and industry estimates, the PV market has been impacted by the global economic downturn but is expected to grow by about 30% in 2010.

The DuPont portfolio of innovative materials for photovoltaic modules and manufacturing

A Front Sheet Materials

DuPont™ Teflon® films

B Photovoltaic Encapsulants

DuPont™ Elvax® EVA resins
DuPont™ PV5200 Series encapsulant sheets
DuPont™ PV5300 Series encapsulant sheets

C Photovoltaic Metallizations

DuPont™ Solamet® photovoltaic metallizations

D Thin Film Substrates

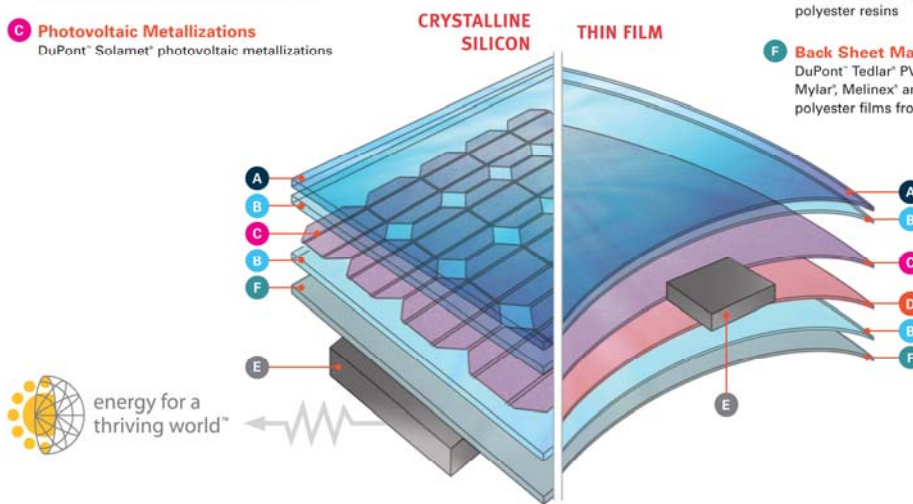
DuPont™ Kapton® polyimide films
Teonex® PEN and Melinex® ST polyester films
from DuPont Teijin Films™

E Junction Box and Structural Parts

DuPont™ Rynite® PET thermoplastic
polyester resins

F Back Sheet Materials

DuPont™ Tedlar® PVF films
Mylar®, Melinex® and Teijin® Teton®
polyester films from DuPont Teijin Films™



**High Performance Seals for
Cell Manufacturing Equipment**
Kalrez® perfluoroelastomer parts from
DuPont Performance Elastomers

Wet-Etch Additives for PV Manufacturing

DuPont™ Zonyl® fluorosurfactants
DuPont™ Capstone® fluorosurfactants



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Facts about the DuPont Products Used in the Global PV Solar Industry:

- DuPont™ Elvax® EVA copolymer resins: cushion individual cells from impact and enables the transmission of sunlight to the cells.
- DuPont™ PV Encapsulants: ranging from soft to structural, clear DuPont™ PV5200 and PV5300 Series encapsulant sheets offer proven safety and laminating performance, and deliver long term protection for the most sensitive portions of PV modules.
- DuPont™ Teflon® fluoropolymer films for frontsheets and flexible panels: offer mechanical strength and durability against cracking, flexibility and nearly 100 percent transparency.
- DuPont™ Tedlar® polyvinyl fluoride films: deliver long lasting UV and weather-resistant backsheets.
- Mylar®, Melinex® and Teijin® Teton® PET films from DuPont Teijin Films: provide value adding, cost effective film solutions for backsheet laminates.
- DuPont™ Solamet® photovoltaic metallizations: increase the efficiency and yield of solar cells.
- DuPont™ Rynite® PET thermoplastic resins: increase safety, eliminate corrosion, and provide long lasting performance for junction boxes and structural components in harsh environments.
- DuPont™ Kapton® polyimide film for thin film substrates: provide excellent electrical and thermal properties to thin film modules.
- Teonex® PEN and Melinex® ST polyester films from DuPont Teijin Films: provide high temperature dimensional stability, clarity and UV protection for thin film deposition substrates and frontsheets.
- Kalrez® perfluoroelastomer parts from DuPont Performance Elastomers: provide excellent resistance to aggressive chemicals and high temperatures to help reduce the risk of unplanned maintenance.
- DuPont™ Zonyl and Capstone™ flurosurfactants: provide unrivaled wetting aids in semiconductor texturing, offering etch control, reduced waste and improved cell efficiencies.
- DuPont™ Niapure® and Niapure® Select metallic sodium: enables alternative low cost manufacturing processes for polysilicon.

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DuPont and Silicon Energy Announce First Glass-Glass Photovoltaic Modules Made with DuPont™ PV5300 Series Encapsulant

ARLINGTON, Wash. and WILMINGTON, Del., Oct. 27, 2009 -- Silicon Energy, LLC and DuPont Photovoltaic Solutions announce the world's first glass-glass polycrystalline silicon (cSi) photovoltaic (PV) power-generating modules made with advanced [DuPont™ PV5300 series ionomer-based encapsulant](#) for added module strength and durability.

"By combining the high efficiency of crystalline silicon with the new, stronger encapsulant from DuPont, our module offers a new level of physical strength, durability and improvements in design," said Gary Shaver, director of sales for Silicon Energy.

High-efficiency crystalline silicon wafer technology is well-established in PV modules, but the fragile semiconductive wafer material requires protection against impact, flexing and moisture. Traditionally, this protection has been provided by surrounding the silicon wafers in a polymer called EVA, supplied in a sheet form.

"Compared with EVA and other available encapsulants, the new DuPont™ PV5300 sheet is based on ionomer, which is up to 100 times stiffer, 5 times stronger and much more resistant to moisture intrusion," explained Steve Cluff, global encapsulants business director for DuPont Photovoltaic Solutions. "DuPont's ionomer sheet technology comes from our advanced interlayer business for safety glass, where the original challenge was to find a clear material that could help laminated glass meet hurricane codes."

DuPont™ PV5300 Series encapsulant sheets deliver glass-like clarity plus impact resistance, high strength and proven adhesion to glass, allowing Silicon Energy to build modules suited to not only high wind loads, but also heavy snows typical during the winter season.

To manufacture its module, Silicon Energy uses two 60-mil layers of the DuPont™ PV5300 encapsulant to surround the silicon wafers, and adds high-transmittance tempered glass to complete the structure. The resulting combination of glass and ionomer sheet material delivers significantly increased flexural strength over traditional modules.

"Because the new DuPont encapsulant is more resistant to moisture intrusion, we're also able to innovate with an open-edged framing design," said Shaver. "This allows snow, water and dirt to just slide right off, which increases module performance."

The new, high-strength Silicon Energy modules are designed with frames and wiring channels along the sides, making installations simple and elegant. The company's "Cascade" design not only improves visual aesthetics, it also lets more air to circulate beneath the modules, which improves module performance.

DuPont announced commercial availability of its new PV5300 Series encapsulants in May 2009. Silicon Energy began testing the material about two years ago, and is the first manufacturer in the United States to complete a new module design with the material. The modules are fully certified and now being shipped commercially.

DuPont™ PV Series encapsulants are part of a broad and growing portfolio of products represented by DuPont Photovoltaic Solutions, which connects science and technology from across the company on a global scale to help support the dramatic growth in the photovoltaic industry. To learn more, please visit <http://photovoltaics.dupont.com>.

[DuPont](#) is a science-based products and services company. Founded in 1802, DuPont puts science to work by creating sustainable solutions essential to a better, safer, healthier life for people everywhere. Operating in more than 70 countries, DuPont offers a wide range of innovative products and services for markets including agriculture and food; building and construction; communications; and transportation.

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(Caption): Manufactured by Silicon Energy, LLC, in Washington State, a strong new photovoltaic module made with DuPont™ PV5300 Series encapsulants is ready to withstand wind and snow.



(Caption): DuPont™ PV5300 Series encapsulants helped Silicon Energy, LLC, design a strong, open-edged photovoltaic module that lets air circulate and readily sheds water and dirt.



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**DuPont Teijin Films™ Introduces Mylar® and Melinex® Polyester Films
with Enhanced Weatherability for Photovoltaics**

HOPEWELL, VA, Oct. 26, 2009 -- DuPont Teijin Films today announced the first in a series of Mylar® and Melinex® polyester films with enhanced “weatherability” and durability performance for use in the photovoltaic (PV) solar energy industry. After ultra-violet (UV) exposure these new films show improved retention of key optical and mechanical properties such as transparency, color, strength and flexibility. Additionally, the new films continue to deliver the key properties of Mylar® and Melinex® brands with no compromise in electrical insulation, surface adhesion, quality roll formation and problem-free converting.

“Our ability to provide improved UV performance in our polyester films is a strong addition to our photovoltaic films offering,” said Simon Shepherd, Photovoltaics Market Manager -- DuPont Teijin Films. “The capability will provide great benefits for our PV backsheet customers and downstream module makers. We welcome the opportunity to discuss with customers and PV industry participants how we can incorporate this new capability into their products, helping provide a cost effective durable solution to the issues they may face.”

DuPont Teijin Films is a global joint venture partnership between DuPont and Teijin, and a leading world producer of PET and PEN polyester films. DuPont Teijin Films offers a wide range of polyester films for markets including photovoltaics, electronics, packaging, safety, health and protection, digital imaging and various industrial applications. Brand names include Mylar®, Melinex®, and Teijin® Tetoron® PET polyester film, Teonex® PEN polyester film, and Cronar® polyester photographic base film. The business includes DuPont-Hongji Films Foshan Co., Ltd., a Chinese joint venture.

Mylar® and Melinex® polyester films are part of a broad and growing portfolio of products presented by DuPont Photovoltaic Solutions, which connects science and technology from across the company on a global scale to help support the dramatic growth in the photovoltaic industry. To learn more, please visit our booth #571 at Solar Power International 2009 in Anaheim, CA, October 27 – 29th, or go to <http://photovoltaics.dupont.com>.

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DuPont Widens Its Offering of UL-Recognized Photovoltaic Encapsulants

WILMINGTON, Del., Oct. 20, 2009 - DuPont™ Elvax® EVA resins for photovoltaic (PV) module encapsulation are now joined by two additional PV encapsulants recognized by Underwriters Laboratory (UL): [DuPont™ PV5200 Series PVB-based sheets and DuPont™ PV5300 sheets](#), based on ionomer technology.

Using UL-recognized encapsulants help module makers accelerate their research and development programs by eliminating the need for separate UL testing of these important assembly materials. UL recognition assures that encapsulants have been manufactured using well-documented control practices resulting in predictable performance and consistency.

"Today's module manufacturers are in a high-stakes race to create the ideal assembly of materials for economically installed and operated solar power systems," said Penny Perry, DuPont marketing manager for photovoltaic encapsulants. "Our goal is to remain the industry's most relied-upon source of ready-to-use, UL-recognized raw materials that help get the most from new designs."

In newer PV designs, such as flexible modules and building-integrated systems, manufacturers are testing new module materials from top to bottom, aiming for ideal combinations of durability, sustained clarity, problem-free adhesion and assembly, and nonreaction with other module components.

"DuPont offers the widest range of encapsulants for module makers to work with and backs them with well-equipped labs around the world to help speed materials testing and customer successes," said Perry.

DuPont™ Elvax® EVA resins have long been established as PV encapsulants, typically compounded with cross-linking agents and supplied to module makers as converted sheet materials. In traditionally manufactured rigid modules, these sheets often create an ideal combination of clarity and mechanical cushioning of the sensitive silicon components inside the module.

Newer encapsulants such as DuPont™ PV5300 series ionomer-based sheets are helping manufacturers consider alternative manufacturing systems and technologies, freed from the need for chemical crosslinking of the polymer in order to assure robust sheet properties. Advantages with the ionomer-based sheet include stronger resistance to moisture intrusion at module edges and extra stiffness for lower module deflections when faced with wind loads. The formable thermoplastic sheet is also useful for building-integrated designs where polymer components can be combined for efficiency or structural integration.

DuPont™ PV5200 Series PVB-based encapsulants, announced earlier this year, are creating new ways to design and assemble thin-film modules, a potential game-changing PV technology that helps put active power generation into multifunctional roofing and fenestration products. Recent thin-film technology investments by DuPont have included lab expansions in Europe and China, and a joint technology research project with the United States Department of Energy for discovery of next-generation thin film technology.

The DuPont UL-recognized PVB-based and ionomer-based encapsulants are available worldwide, and draw from extensive DuPont experience supplying similar sheet materials for the production of laminated safety glass.

DuPont™ PV Series encapsulants are part of a broad and growing portfolio of products represented by DuPont Photovoltaic Solutions, which connects science and technology from across the company on a global scale to help support the dramatic growth in the photovoltaic industry. To learn more, please visit <http://photovoltaics.dupont.com>.

DuPont is a science-based products and services company. Founded in 1802, DuPont puts science to work by creating sustainable solutions essential to a better, safer, healthier life for people everywhere. Operating in more than 70 countries, DuPont offers a wide range of innovative products and services for markets including agriculture and food; building and construction; communications; and transportation.

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(Caption): DuPont Photovoltaics Solutions offers the world's broadest choice of photovoltaic encapsulants, including EVA-, PVB-, ionomer- and copolymer-based sheets and resins.



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DuPont and Applied Materials Collaborate to Boost Solar Cell Efficiency
Multiple Printing Technology Can Drive Down Power Cost

WILMINGTON, Del. and SANTA CLARA, Calif., Sept. 18, 2009 – DuPont and Applied Materials, Inc. announced a collaboration to advance multiple printing technology that is expected to increase the absolute efficiency of crystalline silicon (c-Si) photovoltaic (PV) solar cells. By increasing the efficiency and yield of solar cells and modules, PV power can become more cost effective versus other forms of energy.

“We’re working with innovative suppliers like DuPont to integrate highly customized material formulations with our leading-edge solar manufacturing systems to drive down the cost per watt of solar energy,” said Charles Gay, president of Applied Solar at Applied Materials. “By using our Baccini back end systems equipped with Esatto Technology™ and DuPont™ Solamet® photovoltaic metallization paste, customers can achieve the precision alignment, repeatability and process control that enables successful multiple printing.”

“This collaborative technology will optimize the efficiency of solar cells and meet the needs of the market by ultimately lowering total system cost,” said Marc Doyle, global business director – DuPont Photovoltaic Solutions. “By working together, we can deliver photovoltaic materials and technologies to our customers better and faster.”

The collaboration reflects DuPont’s recently announced commitment to focus on meeting four emerging global trends, one of which is decreasing dependence on fossil fuels.

Photovoltaic metallization pastes are screen printed onto the surface of solar cells in a pattern of grid lines which serve to collect electricity produced by the cell and transport it out. To maximize efficiency in the solar cell, the multiple printing technology will reduce the shadowing effect of wide grid lines on solar cells and improve electrical conductivity. Applied Baccini Esatto Technology™ together with DuPont™ Solamet® photovoltaic metallization pastes enables narrower and taller grid lines to be precisely printed in two or more layers. In addition to demanding precise alignment of the

patterning system, multiple printing requires the paste to be finely tuned to perform consistently during all printing passes.

Applied Materials, Inc. is the global leader in Nanomanufacturing Technology™ solutions with a broad portfolio of innovative equipment, service and software products for the fabrication of semiconductor chips, flat panels, solar photovoltaic cells, flexible electronics and energy efficient glass. At Applied Materials, we apply Nanomanufacturing Technology to improve the way people live. Learn more at www.appliedmaterials.com.

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Oerlikon Adds DuPont™ PV5215 Photovoltaic Encapsulant Sheet to Approved List

HAMBURG, Germany, Sept. 21, 2009 -- At the 24th European Photovoltaic Solar Energy Conference and Exhibit in Hamburg, Germany, DuPont Photovoltaic Solutions is displaying an Oerlikon Solar thin film photovoltaic (PV) module made with [DuPont™ PV5215 PVB-based encapsulant](#). The newly approved encapsulant can now be used in modules carrying Oerlikon Solar's master certification from TÜV Rheinland, who provide international testing and certification services for crystalline silicon and thin-film module technologies.

TÜV's photovoltaic testing is undertaken in accordance with the International Electrotechnical Commission (IEC) standards, such as IEC 61646 for thin film modules, which sets the requirements for the performance of modules suitable for long-term operation in outdoor terrestrial climates. IEC 61646 tests include UV, thermal cycling, hot spot testing, humidity/freeze and outdoor exposure, damp heat, and wet leak current testing ... all aimed at assuring long-term power generating reliability.

Because testing to IEC standards is time consuming and expensive, many module manufacturers rely on the efforts of equipment/technology providers such as Oerlikon Solar and material suppliers such as DuPont to provide the latest materials available to them in ready-to-use approved systems.

"Oerlikon Solar's thin film silicon PV technology is widely recognized as one of the performance and market leaders by manufacturers competing to enable clean, affordable solar power," according to Steve Cluff, global business director -- DuPont Photovoltaic Encapsulants. "DuPont has been working closely with Oerlikon Solar to assure their customers have access to our latest encapsulants, including materials aimed at improving manufacturing cost-effectiveness and module life."

The DuPont™ PV5215 encapsulant is a clear PVB sheet optimized for fast, reliable processing and long-term compatibility with Oerlikon Solar's module components. The latest TUV test results allow for use of DuPont™ PV5215 under Oerlikon Solar's master certification for PVB-based thin film solar PV modules.

Jeannine Sargent, CEO of Oerlikon Solar, explains: "Our goal is to help customers continuously advance their module manufacturing efficiency, using qualified materials from multiple suppliers capable of further advancing the state-of-the-art technology. Adding new encapsulants such as DuPont™ PV5215 PVB is part of Oerlikon Solar's commitment to helping make solar power economically viable."

Oerlikon Solar, headquartered in Switzerland, offers field proven equipment and end-to-end manufacturing lines for the mass production of thin film silicon solar modules. The production lines are complete systems, yet modular and upgradeable in both throughput and process technology.

Oerlikon Solar is ranked "global number one solar turnkey line supplier" by VLSI Research Inc., a leading provider of market research and economic analysis. Oerlikon recently won the 2009 Cell Award for the "best technical product for thin film module manufacturing."

The company has more than 750 employees in 13 locations worldwide and maintains sales and service centers in the United States, Europe, China, Taiwan, Korea, Singapore and Japan.

DuPont™ PV5200 Series PVB encapsulants are part of a broad and growing portfolio of products represented by DuPont Photovoltaic Solutions, which connects science and technology from across the company on a global scale to help support the dramatic growth in the photovoltaic industry. To learn more, please visit

<http://photovoltaics.dupont.com>.

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News Release

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DuPont Microcircuit Materials Introduces Solamet® PV173 Photovoltaic Metallization Paste
New Lead-free Option Offers Outstanding Performance with Preferred Environmental Properties*

RESEARCH TRIANGLE PARK, N.C., Sept. 17, 2009 – DuPont Microcircuit Materials today announced the introduction of DuPont™ Solamet® PV173 photovoltaic (PV) metallization paste, a new lead-free* front side material for crystalline silicon solar cells. With its high performance and superior environmental properties, Solamet® PV173 is targeted to PV cell and module manufacturers who are seeking technologies with a significantly reduced environmental footprint.

“DuPont has achieved world-class performance with this new lead-free* metallization paste formulation that is more environmentally preferred and a near drop-in replacement for standard PV cell processes,” said Peter Brenner, global marketing manager, Photovoltaics - DuPont Microcircuit Materials. “It’s another excellent example of how DuPont is putting science to work by helping customers meet their needs for more sustainable solutions, without compromising on performance.”

Solamet® PV173 is compatible with standard PV cell manufacturing processes, and features excellent electrical performance on both mono- and multi-wafers for flexible wafer selection. Solamet® PV173 provides high adhesion, superior print speed, and enables advanced fine line designs down to 80 microns. It is also compatible with DuPont™ Solamet® PV502 and PV505 tab silver pastes, and PV38x aluminum pastes, which are also lead-free*.

DuPont™ Solamet® is part of a broad and growing portfolio of products represented by DuPont Photovoltaic Solutions, which connects science and technology from across the company on a global scale to help support the dramatic growth in the photovoltaic industry. To learn more, please visit <http://photovoltaics.dupont.com>.

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* “Lead free” as used herein means that lead is not an intentional ingredient in and is not intentionally added to the referenced products. Trace amounts however may be present.

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Photo: A high resolution image of a crystalline silicon photovoltaic solar cell is available at:

http://www2.dupont.com/Photovoltaics/en_US/assets/images/gallery/solamet_pv173.jpg

Caption: DuPont™ Solamet® PV173 photovoltaic metallizations exhibit superior environmental properties, without compromising on performance.



News Release

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DuPont Microcircuit Materials Introduces New Solamet® PV412 Photovoltaic Metallization for Thin Film Solar Technologies

RESEARCH TRIANGLE PARK, N.C., Sept. 8, 2009 – DuPont Microcircuit Materials (DuPont) today announced the introduction of DuPont™ Solamet® PV412 photovoltaic (PV) metallization paste, the latest in a line of silver conductor materials specifically developed for thin film PV technologies. Thin film PV is projected to be the fastest-growing segment of the solar module industry primarily because of its potential to reduce the cost of producing solar-derived energy.

“Solar cell manufacturers can significantly reduce their cost per watt of solar energy by using high-performing materials that allow them to achieve higher cell efficiencies, higher production yields, and more efficient use of materials,” said Robert Cockerill, Thin Film Photovoltaic marketing manager – DuPont Microcircuit Materials. “We worked closely with leading thin film PV manufacturers as we developed Solamet® PV412, because we share a common goal of enabling more cost-effective manufacturing of solar cells with improved efficiency and yield to help solar energy become more competitive with other forms of energy generation.”

DuPont collaborated with [Ascent Solar Technologies, Inc. \(ASTI\)](#), a developer of state-of-the-art flexible thin-film solar modules, as it developed Solamet® PV412.

“Innovative materials are critical to advancing our technology for thin film photovoltaics,” said Prem Nath, senior vice president Production-Operations – Ascent Solar Technologies. “ASTI is building a position as a leader in the production of lightweight flexible photovoltaics used for portable power and building integrated photovoltaic (BIPV) products. As our technology has evolved, the ability to work closely with our supplier DuPont in early stage testing as it adapted Solamet® photovoltaic metallizations to other materials and manufacturing processes has been a big advantage.”

DuPont™ Solamet® PV412 photovoltaic metallization paste is designed for use on devices where a Transparent Conductive Oxide is utilized. It is ideal for use with Copper Indium Gallium Selenide (CIGS), Amorphous Silicon (a-Si) on flexible substrates, and Heterojunction with intrinsic thin layers (HIT) PV cells, and also suitable for any PV application where a low temperature curing conductor is required. Key features include fine line printing down to 80um resolution, long screen residence time for robust printer

operation, low contact resistance, low gridline resistance, high adhesion to indium tin oxide, and strong compatibility with most transparent conductive oxides.

DuPont™ Solamet® is part of a broad and growing portfolio of products represented by DuPont Photovoltaic Solutions, which connects science and technology from across the company on a global scale to help support the dramatic growth in the photovoltaic industry. To learn more, please visit <http://photovoltaics.dupont.com>.

DuPont expects to nearly triple its annual photovoltaic sales across all product platforms to more than \$1 billion in 2012 based on strong fundamentals for long-term revenue growth in the photovoltaic solar energy market, combined with the company's ability to deliver new technologies to the industry.

DuPont is a science-based products and services company. Founded in 1802, DuPont puts science to work by creating sustainable solutions essential to a better, safer, healthier life for people everywhere. Operating in more than 70 countries, DuPont offers a wide range of innovative products and services for markets including agriculture and food; building and construction; communications; and transportation.

Forward-Looking Statements: This news release contains forward-looking statements based on management's current expectations, estimates and projections. The company does not undertake to update any forward-looking statements as a result of future developments or new information. All statements that address expectations or projections about the future, including statements about the company's strategy for growth, product development, market position, expected expenditures and financial results are forward-looking statements. Some of the forward-looking statements may be identified by words like "expects," "anticipates," "plans," "intends," "projects," "indicates," and similar expressions. These statements are not guarantees of future performance and involve a number of risks, uncertainties and assumptions. Many factors, including those discussed more fully elsewhere in this release and in DuPont's filings with the Securities and Exchange Commission, particularly its latest annual report on Form 10-K, as well as others, could cause results to differ materially from those stated. These factors include, but are not limited to changes in the laws, regulations, policies and economic conditions of countries in which the company does business; competitive pressures; successful integration of structural changes, including acquisitions, divestitures and alliances; research and development of new products, including regulatory approval and market acceptance, and seasonality of sales of agricultural products.

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Photo: Photovoltaic thin film module, provided courtesy of Ascent Solar, can be downloaded at: http://www2.dupont.com/Photovoltaics/en_US/assets/images/gallery/solamet_thinfilm.jpg

Caption: New DuPont technologies such as Solamet® PV412 photovoltaic metallizations help enhance the efficiency of thin film photovoltaic modules. Photo provided courtesy of Ascent Solar.



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DuPont to Invest \$120 Million to Increase Capacity for Tedlar® Photovoltaic Module Materials
Company Expects \$1 Billion in Photovoltaic Sales by 2012

WILMINGTON, Del., Aug. 20, 2009 – As a leading supplier of materials to the solar photovoltaic industry, DuPont today is providing further details of a multi-phase production expansion for its high-performance DuPont™ Tedlar® polyvinyl fluoride (PVF) product line. This phase of the expansion represents more than \$120 million in investment which increases, by over 50 percent, the capacity of monomer and resin used in producing Tedlar® films. Tedlar® films serve as the critical backsheet component, providing long-term durability for photovoltaic modules in all-weather conditions.

Site selections for this phase of the Tedlar® capacity expansion are complete, and construction has begun for new monomer and resin facilities at the DuPont Louisville, Ky., and Fayetteville, N.C., sites, respectively. The facilities are scheduled to start up in mid-2010.

“This investment supports the significant increase in the global market demand for clean, renewable energy,” said David B. Miller, group vice president – DuPont Electronic & Communication Technologies. “Our capacity expansions are critical steps in growing the Tedlar® business and maintaining our market leadership in backsheets for solar panels that deliver the long-term, reliable power supply that our customers have come to expect from their investment in renewable power generation.”

The investment reflects the company’s commitment, announced last week, to focus on meeting four emerging global trends, one of which is decreasing dependence on fossil fuels.

DuPont anticipates that the photovoltaic market will grow rapidly over the next several years, and this growth will drive the demand for Tedlar® and other new materials that increase the lifetime and efficiency of solar cells and modules. DuPont expects that overall sales of its family of products into the photovoltaic industry will exceed \$1 billion by 2012.

DuPont already has implemented capacity expansions in 2009 for Tedlar® PV2100 series film and is completing the engineering and design for a planned expansion of Tedlar® PV2000 series film production, which together will more than double Tedlar® film capacity for the photovoltaic industry.

DuPont™ Tedlar® PVF films have been an essential component of photovoltaic backsheets for more than 25 years. Tedlar® is widely recognized as the industry standard due to its excellent strength, weather resistance, ultraviolet resistance and moisture barrier properties. As a result, Tedlar® enables solar modules to achieve long-life performance providing a long-term sustainable energy source for the marketplace. Tedlar® films also are used in key applications for aerospace, construction and graphics arts because of their durability and

weatherability. Tedlar® is manufactured at DuPont sites in Fayetteville, N.C.; Louisville, Ky.; Buffalo, N.Y.; Parlin, N.J.; Fort Madison, Iowa and Towanda, Pa.

DuPont™ Tedlar® PVF films are part of the broad and growing portfolio of products from DuPont Photovoltaic Solutions, which applies DuPont science and technology to support the dramatic growth of the photovoltaic industry globally. To learn more about DuPont Photovoltaic Solutions, visit <http://photovoltaics.dupont.com>.

DuPont is a science company. Founded in 1802, DuPont puts science to work by creating sustainable solutions essential to a better, safer, healthier life for people everywhere. Operating in more than 70 countries, DuPont offers a wide range of innovative products and services for markets including agriculture, nutrition, electronics, communications, safety and protection, home and construction, transportation and apparel.

Forward-Looking Statements: This news release contains forward-looking statements based on management's current expectations, estimates and projections. The company does not undertake to update any forward-looking statements as a result of future developments or new information. All statements that address expectations or projections about the future, including statements about the company's strategy for growth, product development, market position, expected expenditures and financial results are forward-looking statements. Some of the forward-looking statements may be identified by words like "expects," "anticipates," "plans," "intends," "projects," "indicates," and similar expressions. These statements are not guarantees of future performance and involve a number of risks, uncertainties and assumptions. Many factors, including those discussed more fully elsewhere in this release and in DuPont's filings with the Securities and Exchange Commission, particularly its latest annual report on Form 10-K, as well as others, could cause results to differ materially from those stated. These factors include, but are not limited to changes in the laws, regulations, policies and economic conditions of countries in which the company does business; competitive pressures; successful integration of structural changes, including acquisitions, divestitures and alliances; research and development of new products, including regulatory approval and market acceptance, and seasonality of sales of agricultural products.

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Photo:

<http://vocuspr.vocus.com/VocusPR30/Newsroom/ViewAttachment.aspx?SiteName=DupontNew&Entity=PRAsset&AttachmentType=F&EntityID=101248&AttachmentID=6a4db64e-22cb-48a2-8291-a755283b7316&NewWindow=true>

Caption: DuPont is a leading supplier of materials and technology to the photovoltaic industry, and expects that overall sales of its family of products into the industry will exceed \$1 billion by 2012.

DuPont Photovoltaic Solutions Fact Sheet

http://www2.dupont.com/Photovoltaics/en_US/assets/downloads/pdf/DPVS_FactSheet.pdf