

Oerlikon Solar introduces ahead of its technology roadmap the new production line "ThinFab"

## **Oerlikon Solar Breaking Two World Records: Lowest Module Production Cost and Highest Lab Cell Efficiency**

**Valencia (Spain), 7 September 2010 – Oerlikon Solar launched today the new production line "ThinFab" for manufacturing of thin film silicon modules, which will achieve record breaking production costs of €0.50 per Watt peak (Wp). Furthermore, Oerlikon Solar developed a new champion Micromorph® lab cell in cooperation with Corning Incorporated with 11.9 percent stabilized efficiency confirmed by the honorable U.S. National Renewable Energy Laboratory (NREL). The two world records boost the competitiveness of Oerlikon Micromorph® thin film silicon technology and demonstrate its future potential. "Our achievements could become a breakthrough for thin film silicon technology," says Michael Buscher, Oerlikon Group CEO. "We are proud that our new ThinFab offers a highly competitive production line to the solar market and that we could verify further potential of our technology."**

The new ThinFab incorporates a wide range of improvements ahead of the Oerlikon Solar technology roadmap:

- New generation of the core equipments PECVD, TCO and Laser
- Thinner cell structures with reduced degradation and reduced gas consumption
- Stabilized module efficiency of 10 percent (143 Wp per module)
- New low voltage module design, based on a simplified new backend equipment

The ThinFab reduces the energy payback-time of thin film silicon modules below one year, with the lowest energy consumption for photovoltaic production plants in the industry.

"Our extraordinary competencies are embedded in our new ThinFab and will change the perception of thin film silicon technology. The 10 percent efficiency of our non-toxic, environmentally friendly modules, combined with the lowest production costs ever, provides the solar industry with completely new opportunities. On top of that our new champion cell with 11.9 percent stabilized

efficiency demonstrates even further potential of the thin film silicon technology”, states Dr. Jurg Henz, Oerlikon Solar CEO. Furthermore “our technology offers the lowest energy payback time compared to other crystalline technologies and is not based on limited resources.”

Oerlikon Solar’s existing customers can as well benefit from many technical improvements. Oerlikon Solar will gradually introduce upgrade packages, enabling better performance, higher output, and improved efficiencies of their existing production lines.

*The Oerlikon Solar ThinFab was presented to the public with the kind support of Robby Naish, who won his first windsurfing world championship in 1977 at the age of 13. Thereafter he led the world championship for 23 years in a row due to his extraordinary competencies and his innovative drive.*

*You will find us at the 25<sup>th</sup> European Photovoltaic Solar Energy Conference and Exhibition (EU PVSEC) in Valencia in hall 2, on level 2, booth B8.*

For more detailed information about the new ThinFab visit [www.oerlikon.com/solar/thinfab](http://www.oerlikon.com/solar/thinfab) or contact:

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**About Oerlikon**

Oerlikon (SIX: OERL) is a leading high-tech industrial group specializing in machine and plant engineering. The Company is a provider of innovative industrial solutions and cutting-edge technologies for textile manufacturing, thin-film coating, drive, vacuum, solar energy systems and advanced nanotechnology. A Swiss company with a tradition going back 150 years, Oerlikon is a global player with around 16,000 employees at over 150 locations in 36 countries and sales of CHF 2.9 billion in 2009. The Company invests more than CHF 200 million annually in R&D, with over 1,200 specialists working on future products and services. The operative businesses rank either first or second in their respective global markets.

**About Oerlikon Solar**

Oerlikon Solar designs and manufactures field-proven equipment and end-to-end manufacturing lines for the mass production of environmentally sustainable thin film silicon solar modules. With its amorphous and high-efficiency Micromorph<sup>®</sup> tandem technology, Oerlikon has dramatically increased the efficiency of thin film silicon and created innovative end-to-end manufacturing solutions for thin film PV, enabling new entrants in the fast-growing, global PV manufacturing business. Oerlikon Solar leads the thin film solar equipment sector with 12 factories in production in seven countries, almost 3 million modules produced and 450 MW of capacity produced worldwide.

Oerlikon Solar has Micromorph<sup>®</sup> patents dating back to 1993, was the first to integrate the high-efficiency Transparent Conductive Oxide (TCO) layer, and the first to commercialize the high-efficiency Micromorph<sup>®</sup> process and support the majority of its customers in migrating to it. To date it is the only proven end-to-end Micromorph<sup>®</sup> solution available on the market, offering lowest cost of electricity \$/kWh, and proving highest future cost reduction potential. Certifications from UL and TUV confirm that Oerlikon Solar meets highest quality and reliability standards worldwide. In May 2009, Oerlikon Solar became the first thin film silicon PV technology provider to pass all tests required for its Micromorph<sup>®</sup> thin film silicon solar PV modules and receive TUV Rheinland's IEC certification.

Oerlikon Solar thin film silicon modules are produced with non-toxic materials, and they are ideal for semi-transparent glass and other building-integrated PV (BIPV) applications. Thin film modules perform well in diffuse or lower light, and are best suited for high temperature climates. Its production lines are complete systems, yet modular and upgradeable, so customers have the capability to scale up rapidly with the latest technology to meet fast-growing demand for solar PV, demand that will accelerate as the cost of PV energy approaches grid parity.

Oerlikon Solar is headquartered in Switzerland, has about 700 employees in 13 locations worldwide, a number of factories in production around the globe and maintains sales and service centers in the USA, Europe, China, Taiwan, Korea, Singapore and Japan.

For more information, please visit [www.oerlikon.com/solar](http://www.oerlikon.com/solar)