

## **POLYIC AND THINFILM ANNOUNCE HIGH-VOLUME PILOT PRODUCTION OF ROLL-TO-ROLL PRINTED MEMORIES**

### **ENABLING NEXT-GENERATION INTERACTIVE TOYS AND GAMES**

Fürth, Germany and Oslo, Norway, September 22, 2009

**PolyIC GmbH & Co. KG ("PolyIC")**, a developer and manufacturer of Printed Electronics products, and **Thin Film Electronics ASA ("Thinfilm")** (OSE: THIN.OL), a developer of re-writable printed memory products, announce that they have jointly manufactured fully functional re-writable polymer memory products in a high-volume roll-to-roll printing process. The high yield printing process gives leading production performance, and the resulting memory product meets low voltage requirements for consumer products, such as in the toys and games industry.

The Thinfilm re-writable memory together with a reader/writer provides a platform for Toy and Game designers to create the next generation of interactive and evolvable toys and games where the memory could be linked to the online world. Now, companies can add interactivity to their existing product lines as well as create entirely new toys and games with added value for both consumers and brand owners. In particular, brand owners can tailor their marketing to the behaviour of the consumers and also provide them with unique features, collections and offers. With Thinfilm memory everywhere the opportunities are endless.

Rolf Åberg, CEO of Thinfilm, stated: "We are very pleased by the results of the collaboration with PolyIC, and with their ability to produce Thinfilm polymer memory in a high volume, cost effective printing process. PolyIC, which is owned by Siemens and Leonhard Kurz, is a stable, long-term production partner for Thinfilm, as we start providing our customers and partners with memory products in large volumes. Furthermore, we can in the future integrate our memory technology with PolyIC's thin film transistor technology, enabling PolyIC and Thinfilm to jointly address significant market opportunities, such as printed RFID (radio frequency identification) products."

"PolyIC has developed and built up a roll-to-roll production process for printed electronics, and has successfully demonstrated its first printed RFID tags. Thinfilm's memory technology is complementary to our own technology, and by using our process and production technology, we have been able to successfully manufacture stand-alone Thinfilm memory products that satisfy our current customer requirements. As a complement to our PolyID® and PolyLogo® product lines, we look forward to developing products combining Thinfilm's and our technology", commented Wolfgang Mildner, Managing Director at PolyIC.

The joint development and the results are built on Thinfilm's intellectual property and know-how for soluble memory materials, architecture and processes, as well as PolyIC's intellectual property and know-how for technology, processes and manufacturing techniques.

#### **Printed Electronics**

Printed Electronics is a new, emerging industry that takes advantage of printing technologies to manufacture electronics with a wider variety of form factors, including thin, flexible substrates. Through the use of proprietary printing techniques, these electronic circuits can be manufactured at high efficiency and very high volumes when compared to traditional electronics. This enables electronic functionality in a whole new

family of products such as medical and consumer disposables, cards, labels, RFID tags, toys and games. The independent research and analyst firm IDTechEx, estimate that the market for printed and potentially printed electronics, will rise from \$1.92 billion in 2009 to \$57.16 billion by 2019.

### **PolyIC GmbH & Co. KG**

PolyIC is a leading developer of polymer electronics technology and moreover a future supplier of printed electronic products and components. The two product lines are called PolyID<sup>®</sup> and PolyLogo<sup>®</sup>. The activities are focused on providing innovative low cost electronics for mass markets.

PolyIC focuses on its expertise in materials, new adapted chip design methods as well as mature mass production processes (roll-to-roll printing) for the development of this new technology and the goal of large-volume production.

The leading application for PolyIC is RFID (radio frequency identification). The wireless data transfer technology has the potential to be used in various electronics applications being thin, flexible, robust and low-cost.

PolyIC is a member of EPCglobal – an organization for standardizing the use of RFID in the industries as well as a founding member of the OE-A (Organic Electronics Association), a working group under the umbrella of the VDMA (Verband Deutscher Maschinen- und Anlagenbau). The OE-A promotes organic electronics internationally. Furthermore, since 2008 PolyIC is a member of AIM-D e.V., an association for automatic identification and mobile data capture.

PolyIC GmbH & Co. KG was set up in November 2003 as a joint venture between Leonhard Kurz (51%, hot stamping and coating) and Siemens (49%, electronics) for the development and production of printed polymer electronics. PolyIC is headquartered within the Nuremberg Metropolitan Region in Fuerth on the premises of Leonhard Kurz Stiftung & Co. KG.

For more information on PolyIC, visit [www.polyic.com](http://www.polyic.com)

### **Thin Film Electronics ASA**

Thin Film Electronics ASA, an Oslo, Norway-based company with R&D facilities in Linköping, Sweden, is a leading provider of non-volatile memory products based on the use of functional polymer materials. These non-volatile and flexible memory products are ideally suited for consumer and industry applications such as toys and games, brand protection, identification, smart packaging, displays and RFID. Thinfilm delivers unique printed memory products today, and with partners like PolyIC, will deliver integrated printed electronics tomorrow. Thin Film Electronics ASA is listed at the Oslo Axess market of Oslo Børs in Norway ([http://www.osloaxess.no/oax\\_eng](http://www.osloaxess.no/oax_eng), ticker code THIN).

For more information on Thinfilm, visit [www.thinfilm.se](http://www.thinfilm.se)

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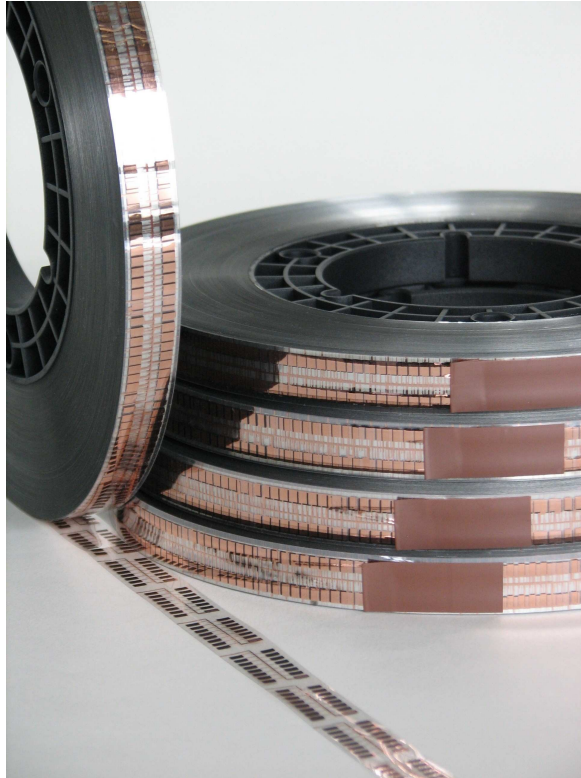
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Expressive pictures regarding the topic of organic electronics are ready to download at <http://www.polyid.de/en/press-images.php>



**Picture: Roll-to-Roll printed re-writable memories on flexible substrate**

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**Download this picture here: <http://www.polyid.de/en/press-images.php>**