

Dowa Acquires Exclusive Sales Rights for Low-temperature Curable Silver Nanopowder Conductive Inks

TOKYO, April 22, 2008 – Dowa Electronics Materials Co., Ltd., a subsidiary of Dowa Holdings Co., Ltd., has acquired the exclusive sales rights in Japan and the Asian region for a conductive ink made with silver nanopowder that was developed by PChem Associates, Inc., a US venture company based in Pennsylvania. Both companies have agreed to pursue even greater collaboration into the future in relation to this line of business, and negotiations continue.

Conductive inks are used as materials in a printing process which is under development that is expected to serve as a next-generation circuit production technology.

The low-temperature curable silver nanopowder inks developed by PChem can print circuits that are highly conductive and have excellent adhesive characteristics, with only low temperature (120°C – 150°C) heating for as short a time as several tens of seconds up to one minute. Use of these inks makes it possible to print electronic circuits on materials such as paper and PET resins, which had until now presented difficulties. Moreover, the process allows for lower costs in high speed printing, and as a result work is proceeding towards the adoption of the new process for such purposes as RFID tags and electronic tickets. Another special characteristic of the new process is that it can be used for printing on large surface areas, and it is anticipated that it will be suitable for EMI shield film and large solar panels.

Now that Dowa Electronics Materials has acquired the exclusive sales rights for these inks in Japan and the Asian region, it will be able to make good use of its own nano-particle technologies and infrastructure not only in sales — it will also offer in-depth technical support for adjustments to ink formulas and condition setting for usage in accordance with client requirements.

Overview of PChem Associates, Inc.

PChem Associates, Inc. is a venture company that owns some of the world's leading technologies in the field of printed electronics (the production of conductive electrodes using printing techniques).

Company name: PChem Associates Inc., a Pennsylvania corporation
Capital: \$1 million
Location: Bensalem, Pennsylvania, US
President: Gregory A. Jablonski



Conductive ink made with silver nano-particles