

Flint Bets on Printed RFID Antennas

Flint Ink is investing several million dollars in a new facility that will develop inks for smart packaging.

Jan. 31, 2003 - Flint Ink Corp., the world's second largest producer of commercial inks, has revealed that it will invest several million dollars to develop conductive inks that can be used for RFID antennas, printed electronics and smart packaging.

Flint plans to open, in the third quarter, a development and resource center near its head quarters in Ann Arbor, Mich. The center will be led by Jim Rohrkemper, Flint's VP of emerging business segments. Dan Lawrence, manager of print as manufacture, will report to Rohrkemper.

"We see printed RFID antennas as one of the early applications for the effort," says Lawrence, who has been working on the conductive inks project for three years. "Beyond that, we're looking at replacing discrete components in electronic wherever possible with conductive inks. The facility we're establishing will do a lot of the fundamental research in that area."

Flint sees smart packaging as an important growth area and wants to capture a significant share of the market. The company has been working with startup Alien Technology on RFID applications for packaging.

Alien has developed a small strap with a tiny microchip and electrical connectors. Flint is working on inks that can be used to print antennas using standard commercial processes. The idea is the strap would be put inside a box of, say, cereal and connected to an antenna printed inside or under the box design. The two companies want to get the cost for the strap and antenna down to under 5 cents.

"That's one of our goals," says Lawrence. "We work closely with Alien. They provide us with their straps, and we're experimenting with different inks and mounting techniques to make that happen."

The new facility will house laboratories, a state-of-the-art pressroom, and advanced technologies. The company will work with its customers -- large packaging and printing companies -- to develop both new conductive inks and new printing applications, based on the customers' existing printing processes.

It may be a decade or more before conductive inks replace silicon chips, but printed RFID antennas are much closer at hand. Lawrence says companies are already beginning to test smart packaging applications that are close to being commercialized.

"I see more widespread commercialization happening later this year," he says. "It should just grow from there, based on some of the positive results we've seen so far."

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