

Bend-it e-books get real with EPD in factory mode

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(PhysOrg.com) -- LG Display has set the production clock ticking for a plastic EPD (electronic paper display) product which in turn is expected to set e-book marketability fast-forward. In an announcement Thursday, Korea-based LG Display, which manufactures thin film transistor liquid crystal display, said it has already started up mass production of EPD for e-books. That leaves little guesswork as to the form factor and no

suspicions that LG Display might instead be sending out vapor about a futuristic project that is still in R&D.

The company press release says the [plastic](#) EPD will be supplied to companies in China followed by completed products for release in Europe in early April. What's more, some reports Thursday said the plastic displays were already being shipped to factories in China with target dates for completed products in April to debut in Europe. There was no word yet about any timetable being set for America. The report said it had begun producing six-inch e-ink panels on a plastic substrate for a Chinese-based ODM (original design manufacturer), for an end product with a release date of April, and that the end product would be in Europe.

The company credits its production-ready success to a “manufacturing breakthrough” surmounting obstacles with temperatures over 350 degrees in LCD manufacturing. LG Display said its plastic EPD can maintain “strong durability” in high temperatures.

The key talking point is "bendable." The black and white electronic-ink product can bend at a range of 40 degrees from the center of the screen. This is an e-ink plastic screen that is 0.7mm thick, weighs 14g, and has slim protective film. The company's comments regarding these details are that the product achieves “a super slim” thickness of 0.7mm which is one-third slimmer than existing glass EPD; and its weight of 14g is more than one-half lighter.

The company maintains that this will help “greatly popularize” the e-book market,” in the words of Sang Duck Yeo, who heads operations for [LG Display](#)'s Mobile/OLED division. The panel features an XGA 1024 by 768-pixel resolution. LG assures that the new screen offers a paper-compatible reading experience. The company says that “As EPD gets thinner, lighter, and more durable with the introduction of plastic EPD, [e-](#)

[books](#) will be able to offer certain unique benefits compared to smart devices and tablets, including reduced eye fatigue and more efficient electricity consumption in addition to lower prices.”

While thin and light, the display was subjected to extensive stress testing of the display, said LG. Testers dropped it from a height of five feet and they whacked it with a urethane mallet. They said there was no breakage and no scratches. This might become a key selling point with LG's plastic product, considering the dismay of some e-reader owners in the past who praise their e-readers for being light and easy on the eyes but also report disappointment over cracked or scratched screens.

More information: *Correction: 0.7mm thick*

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