

Press release

Waterless Offset for Optical Storage Devices

CINRAM trusts Toray's waterless offset plates for flawless, environmentally friendly disc decoration

Prostějov/ Czech Republic, April 21, 2016 - CINRAM GmbH, based near Aachen, Germany, is set on delivering only the very best for its customers. For nearly 18 years, the company has been using Toray's waterless offset plates. During peak periods, the team supporting Ralph Lakämper, CINRAM's Applications Engineer for Label Print, decorates up to one million CDs, DVDs and Blu-ray discs.

"We needed something to complement our screen printing operation, which we used in the early days to print on the completed discs," Lakämper explains. Having tested a number of available products, Toray's waterless offset technology emerged as the most stable, competitively priced and compelling solution for its needs. Today, CINRAM employs Toray waterless plates with 10 Kammann K15 40 screen/offset printing machines and nine KBA MePrint Premium offset printing presses.

For the good of the plastic disc

CINRAM GmbH (www.cinram.de) is the European manufacturing facility and largest distribution site for CINRAM, a leading manufacturer of and logistics provider for optical storage media. CINRAM's core business is the production of Blu-ray discs, CDs and DVDs, trade logistics across Europe, worldwide logistics for local distribution centres and other services. Its best-known customers include 20th Century Fox, Universal Pictures and Warner Music as well as TV guides and computing magazines supplying free film or game cover mounts.

"We exclusively use UV curable inks when printing discs offset," Lakämper continues. "We find that this is the fastest and most environmentally-friendly printing process, since the ink dries immediately under UV light and no solvent vapours are released." Whereas CD labels are usually still printed using screen

The logo for Toray, featuring the word "TORAY" in a bold, blue, sans-serif font. The letter "T" is stylized with a horizontal bar extending to the left, and the letter "Y" has a horizontal bar extending to the right.

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printing, offset remains the preferred option for DVDs and Blu-ray discs thanks to its higher resolution and fine detail when printing four-colour half-tone images. Most discs depict images of films and actors that must be reproduced without loss of quality, replicating the images exactly as they appear elsewhere, such as artwork on movie posters.

The longest run CINRAM has printed using a Toray waterless plate to date is about 100,000 discs. "The Toray plates aren't at all stretched to their limits with us," Lakämper adds. "This is partly due to their stability and behaviour during printing, and partly because market conditions are increasingly requiring us to undertake shorter-run jobs."

When it comes to the reproduction of photo-realistic images with high colour fidelity, waterless offset production technology is a huge leap forward for the printing of CDs, DVDs and Blu-ray discs, according to CINRAM. Other benefits include significant waste reduction, reduced dot gain and reproduction of screen dots more accurately. In addition, waterless offset reproduces better fine detail including fine reverse type on solids.

Captions:

- Image 5: DVDs printed on a KBA Meprint PREMIUS
- Image 6: Toray printing plate in the printing unit of a KBA Meprint PREMIUS and DVDs
- Image 9: Toray printing plates on the cylinder of a Kammann K1540 offset printing machine

TORAY

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About Toray

Toray Industries Inc., the leading manufacturer of waterless printing plates worldwide, was founded in 1926 and has a global presence with factories and sales offices in Asia, Europe and North America. The main businesses of Toray are synthetic fibers, carbon fibers, plastics, films and chemicals. Many of the products are developed from its proprietary polymer technology base and are commonly used by the electronics, packaging, textile, automotive and aviation industries. Recent annual sales approached € 10 billion.

Toray Textiles Central Europe (TTCE), is based in the Czech Republic and features a state-of-the-art manufacturing line for waterless printing plates. Located in Prostějov, in the heart of Europe, the facility consolidates all business operations, including sales, customer service, marketing, production and R&D, for faster, more efficient support of Toray's independent network of dealers and distributors in the European market.

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The logo for Toray, featuring the word 'TORAY' in a bold, blue, sans-serif font. The letters are slightly slanted to the right, and there are small tick marks at the top of the 'T' and 'Y'.