Flexo Plate Technology Optimized for Corrugated

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Increase quality without increasing price
Deliver consistent print from job to job
Improve quality while shortening run lengths
Optimize operations and reduce internal costs
Meet tight deadlines with condensed lead times
Differentiate from competitive offerings

Today’s Challenges

As advertising outlets become more and more fragmented, increasing pressure falls upon the package to sell the product. This pressure, combined with SKU proliferation and inventory reduction practices, creates challenges for package printers.

MacDermid’s Solution to these challenges is the Anti-Fluting Technology Platform:

- Delivers consistent print from job to job
- Optimizes operations with faster press startups and fewer adjustments
- Differentiates through exceptional print quality
- Optimizes platemaking workflow to increase productivity and consistency, plate to plate

Simple Solution to Complex Challenges

Flat-Top Dot Expertise

Flat-Top Dots Reduce Fluting

Flat-top dots have been shown to dramatically reduce fluting when compared to standard digital dots. However...

Not All Flat-Top Dots Are The Same

Building the Better Dot:
MGS Anti-Fluting Technology Platform

MacDermid Anti-Fluting Technology: The Basics
- What is it?
  - Conventional digital photopolymer printing plate
  - Engineered flat-top dot In-The-Plate optimized for corrugated printing
- What is needed to take advantage of this technology?
  - A digital imager
  - Conventional sheet exposure unit
- What is not needed to use MacDermid Anti-Fluting products?
  - Laminator, lamination media, inert gas exposure, high intensity UV exposure
Understanding Fluting

The Fluting Effect: The visual washboard appearance on corrugated print due to the variance in dot gain from the flute peaks and valleys.

General factors that influence fluting:
- Liner quality and fineness of the flute
- Printing plate type (hardness & thickness)
- Printing impression
- DOT SHAPE

CHALLENGE: Fluting

What is the connection?

They are both engineered structures

What Causes Fluting?

They are both engineered structures

Calculating Fluting Factor

Densitometer reads the printed dots over a short distance and plots the difference in print density across the flutes.

Fluting Factor

The Fluting Factor is the difference in measured print density across the flutes and valleys of a corrugated board.
Standard Digital vs. MGS Anti-Fluting Technology

Fluting Factor
- 30% at 85 lpi

Fluting vastly reduced

How MacDermid's Anti-Fluting Technology Works

Top of a corrugated flute
Valley between flutes
Digital MAF plate
Bleached top sheet

Seeing is Believing

Standard Digital Plate
Digital MAF

Dot Profiles:
Standard Digital v. MGS Anti-Fluting Technology

Digital MAF 3% 85 lpi
Digital MAF 3% 85 lpi

Benefits: Reduced Fluting

Utilizing MacDermid's Anti-Fluting Technology, specifically engineered to address the challenges of corrugated printing, significantly reduces fluting and simply prints better.

Competitive Flat-Top Dot Technology
Digital MAF

Benefits: Reduced Fluting

MacDermid Anti-Fluting Technology prints better compared to other competitive flat-top dot technology because the dot shape is specifically designed for corrugated post-print.
MacDermid Anti-Fluting Technology Portfolio

Flat-Top Dot Products for Corrugated Printing

LUX ITP MELO

Key Features

- Super soft durometer
- Engineered flat-top dot directly in the plate
- Minimal board crush
- Lowest possible fluting with a super soft digital plate
- Excellent ink transfer
- Holds the finest detail in all plate thicknesses
- Extremely dry and low tack
- No extra steps necessary
- Reduced dot gain
- Faster press speeds
- Quick wash out
- Extremely durable

LUX ITP MELO

What Is It?

- 25 durometer material for recycled board and thinner liner applications
- Anti-Fluting base chemistry

What does it mean?

- All the anti-fluting benefits of Digital MAF
- Minimal board crush on lower quality board

Bending Stiffness = Tensile Stiffness of the Liners x Board Caliper

LUX ITP MELO

Corrugated Board
LUX ITP MELO – Minimal Board Crush

Measure of unprinted board vs. measure of printed board

LUX ITP MELO Print Samples

Competitive
LUX ITP MELO

Board Crush Comparison

Less important effect, with a plaque of 3.94. The sheet looks finer

Excellent imaging, print reproduction, solid coverage and fluting reduction – Recycled B Flute

LUX ITP MELO Commercial Work

MacDermid Anti-Fluting Technology

- Low Fluting
- Minimal Cupping
- Print Fine Details
**Key Features**
- Low fluting
- No extra steps necessary
- Reduced dot gain
- Faster press speeds
- Quick wash out
- Holds the finest detail in all plate thicknesses
- No cupping allows for uniform impression at all process speeds
- Chip resistant, tack free, and extremely durable

**FEATURES: Engineered Dot Shape**
To reduce fluting in corrugated post print, dot shape matters.

**Benefits: High Quality Shelf Impact**
- Digital MAF is suitable for HQPP at 2540/4000 DPI with no extra steps

**Success with Digital MAF**

**EFIA Awards:**
- Post Print Coated Line & Screen
  - GOLD
- Post Print Coated Process
  - GOLD
- Post Print Coated Line & Screen
  - SILVER

**MGS Anti-Fluting Technology Products Summary**

- Digital MAF
  - Uncoated (Line/Tone) In-Line Case-Maker or Printer/Die-Cutter
    - Gold, Silver & Bronze
  - Uncased (Process) In-Line Case-Maker or Printer/Die-Cutter
    - Gold
  - Coated (Line/Tone) In-Line Case-Maker or Printer/Die-Cutter
    - Gold, Silver & Bronze

- LUX ITP MELO
  - Recycled & low basis weight liners
  - Maintain Shelf Impact
  - Reduce fluting
  - Minimum board crush
  - Best print quality
  - Best ink coverage (minimum DGC)
  - Faster Press Speeds
Thank you!