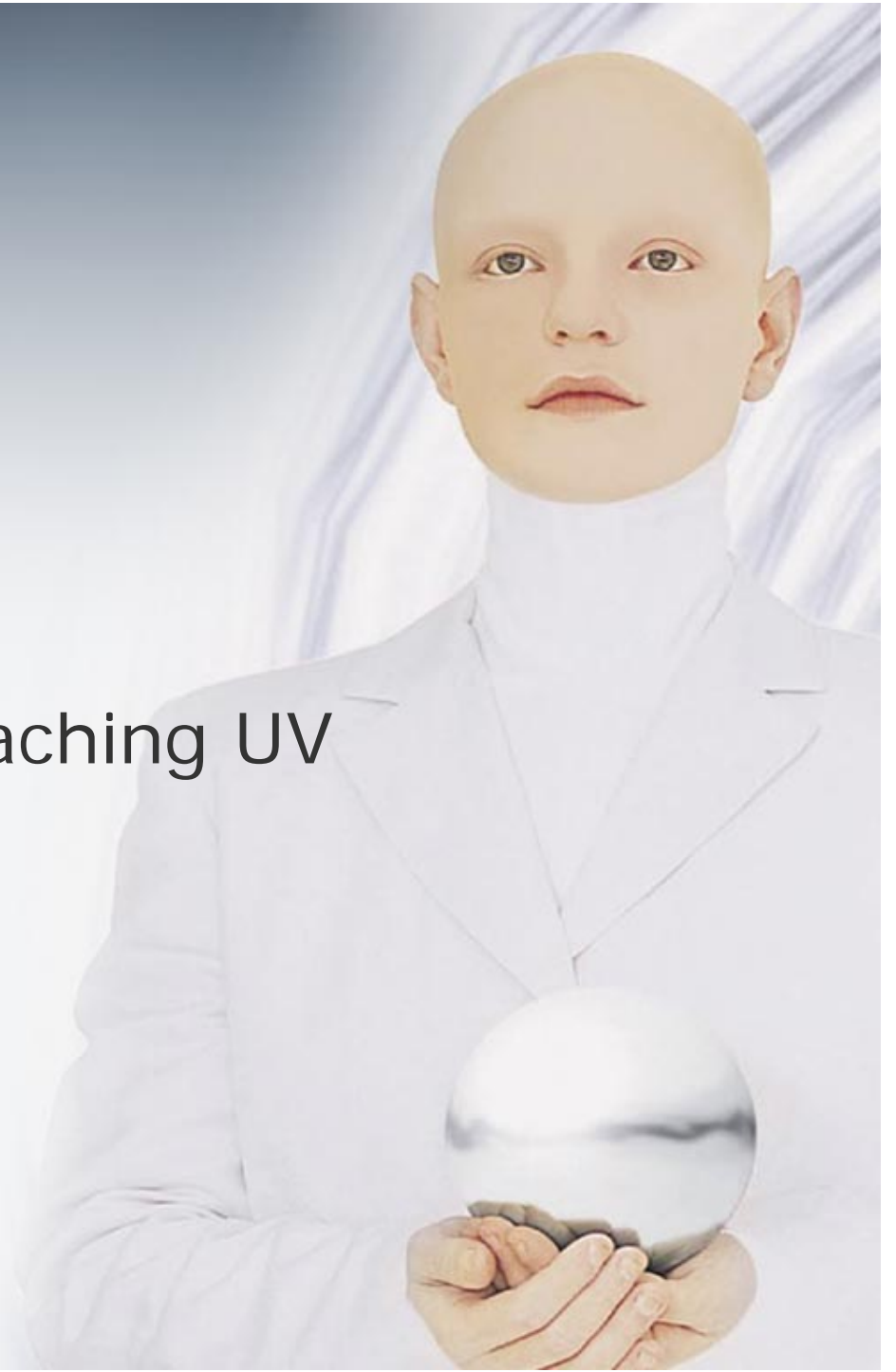


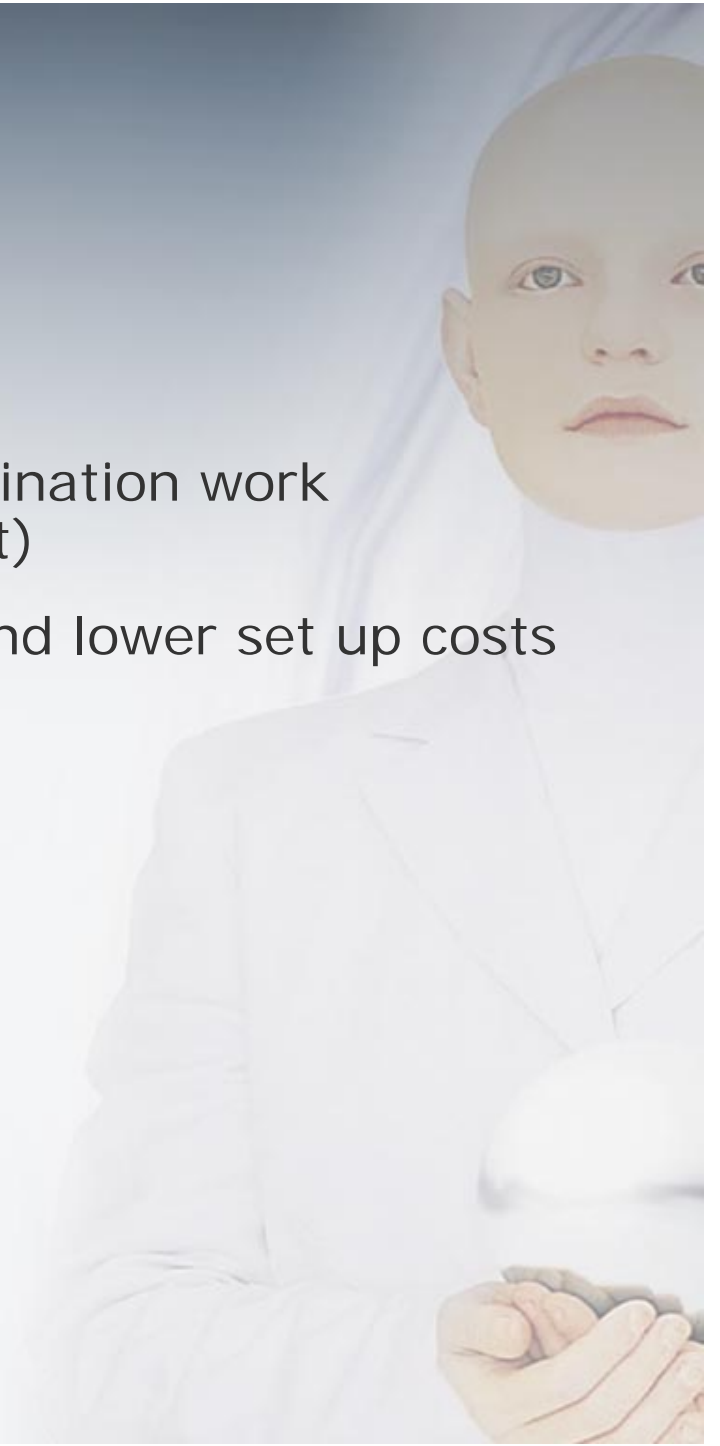
# Flexocure IVORY

UV Flexo white approaching UV  
Screen White



# Flexocure Ivory

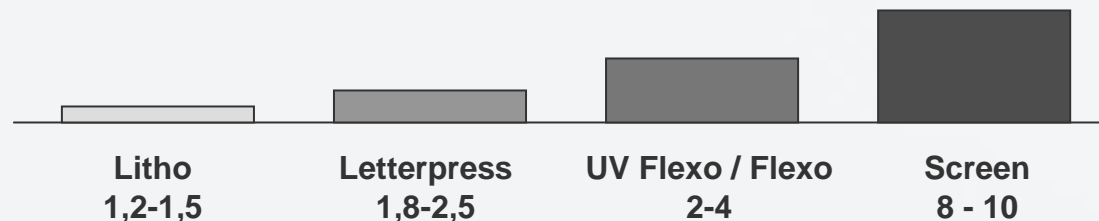
- Extreme opacity UV flexo white ink
- Designed to replace UV screen in combination work (possible to solids and down to 8pt text)
- Enables increased production speeds and lower set up costs



# Can UV Flexo replace UV Screen?



- High Opacity white solid ideal in UV screen.
- Film weight normally 100% higher in screen than in UV flexo.
- Transfer process via anilox roller and plate make it difficult to form a homogenous film.
- Benefit is - changes to text / images easier and faster effectuated in flexo plates than screen stencils.

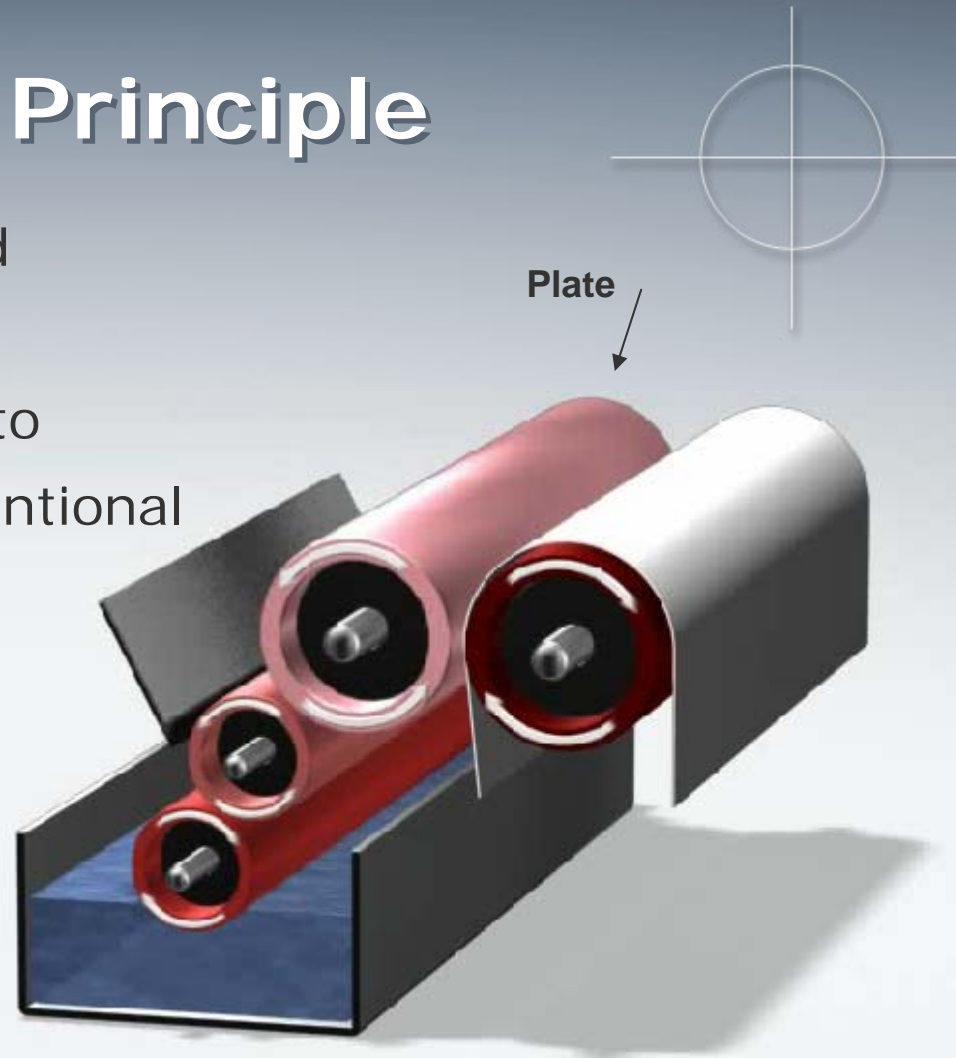


# Flexocure Ivory Principle

- Specially designed to be used with new anilox technology
- Improved opacity compared to standard products with conventional aniloxes

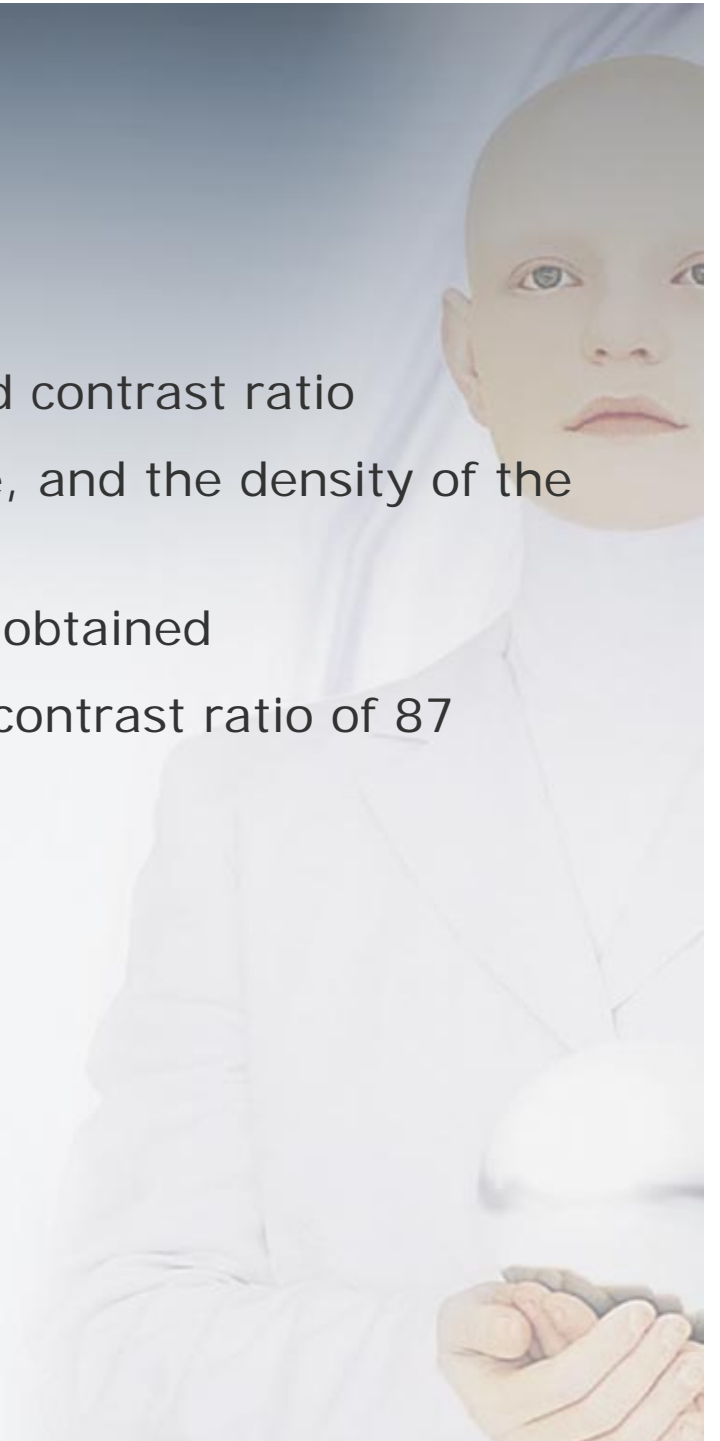
Careful selection  
of plate & tape

Anilox roller



# Test methods

- Opacity is measured with a technique called contrast ratio
- Printed samples are placed over a black tile, and the density of the black ink is measured through the print
- For total coverage a value of 100 would be obtained
- Standard UV screen opaque whites have a contrast ratio of 87 using this technique



# Contrast ratio

## Opacity measurement method



- Printed samples are placed over a black tile, and the density of the black ink is measured through the print. For total coverage a value of 100 would be obtained



Illustration – not actual labels

# Comparison in Combination Printing

vs UV rotary Screen 13% mesh 40m/min



Properties	WB Flexo	UV Flexo std	Flexocure IVORY	SB Gravure (theoretical)
Printability (pinholes)	Slightly worse	Slightly worse	Equal	Better
Text / lines	Worse	Equal > 6p	Equal > 8p	Equal
Opacity	75%	80%	Equal	Worse
Whiteness	Equal	Equal	Equal	Equal
Curing	Equal	Equal	Better	Better
Adhesion	Worse	Equal	Equal	Better
Easy to overprint with UV Flexo	Worse	Equal	Equal	Worse



# Formulation considerations



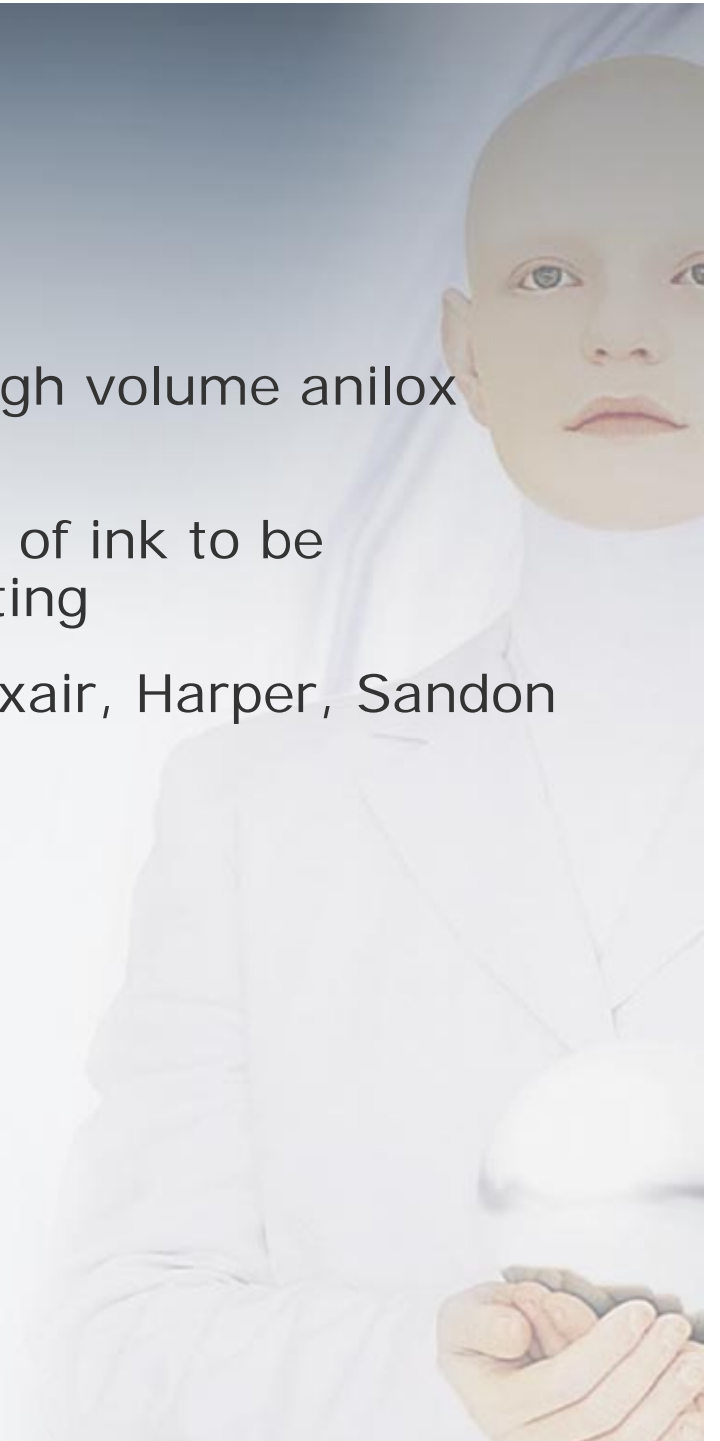
- Development of high opacity product, to print at fast speeds (100m/min). (non yellowing)
- Required optimised viscosity and additive package for best flow and anti pinholing
- Also suitable for VIP, and fully compatible with other print processes for combination work





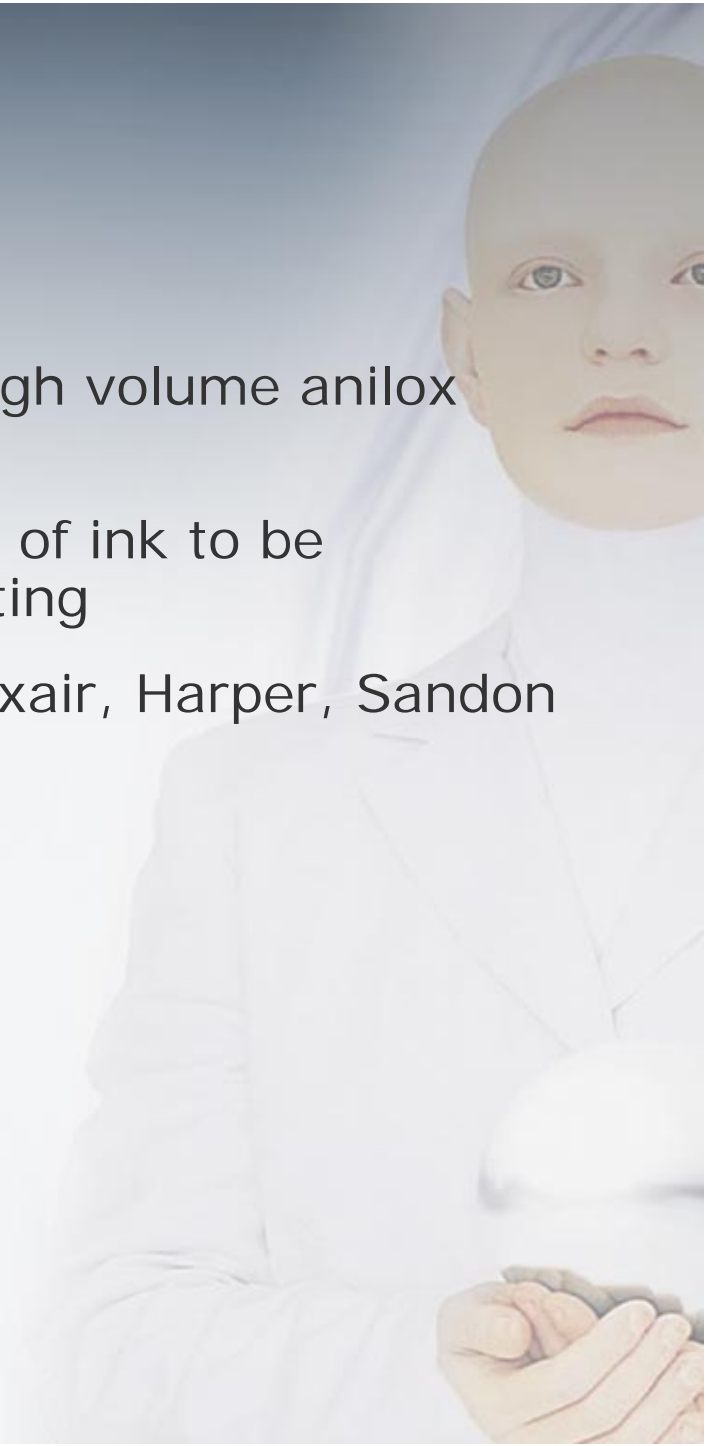
# High volume aniloxes

- Several anilox suppliers now provide high volume anilox technology (25 – 35 cm<sup>3</sup>/m<sup>2</sup>)
- Different engravings allow high volume of ink to be transferred from the anilox during printing
- Flint Group Narrow Web has tested Praxair, Harper, Sandon and Zecher aniloxes

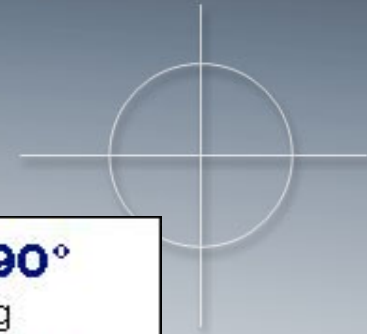


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# Praxair high volume aniloxes

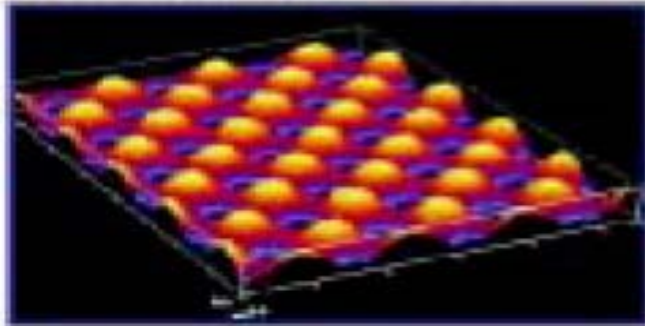
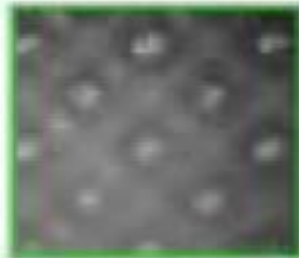


## ART Cell Shape 45°

Anilox Reverse Technology

80 li/cm

16,0 cm<sup>3</sup>/m<sup>2</sup>



200 li/inch

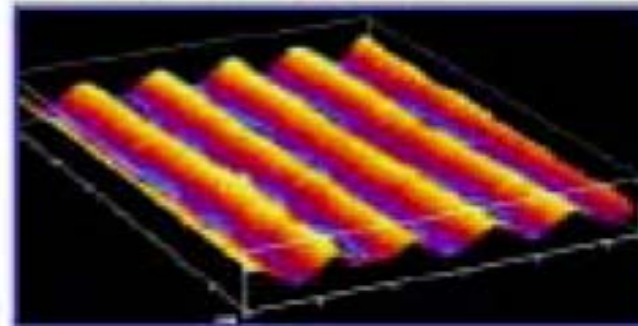
10,3 BCM

## REV Cell Shape 90°

Revolutionary Engraving

280 li/cm

5.5 cm<sup>3</sup>/m<sup>2</sup>

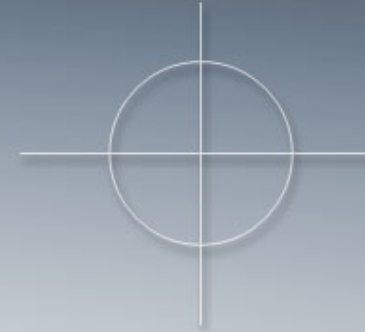


700 li/inch

3.5 BCM



# Flexocure Ivory optimised

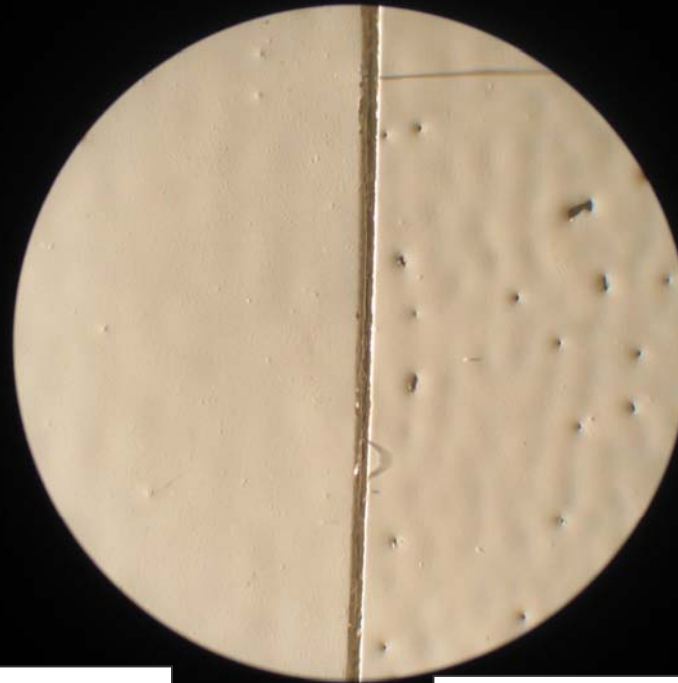


- New anilox technology requires new formulations
- Flexocure Ivory have optimised flow out, lower viscosity to work at high speeds
- Tailored curing suitable for high film weights
- Highest possible pigment loading ensures maximum opacity
- Easy to overprint with any type of UV Flexo ink
- Whiteness is optimised through careful pigment and photo-initiator selection
- New upgraded version of Flexocure Ivory – UFW90002
  - Contrast ratio improved UFW90001 = 68
  - **UFW90002 = 70**



# Flexocure Ivory is better than UV Flexo

- New Flexocure Ivory have optimised flow out, lower viscosity to print "pinhole free"



Flexocure Ivory

UV Flexo std

# UV Flexo can replace UV Screen!

- Studies shows that in solid areas it will be possible to match the opacity of rotary screen, Some limitations in the finer negative text
- **Flint Group Narrow Web** test shows that as low as 8 point negative text UV flexo is commercially acceptable



# UV Flexo can replace UV Screen!



- All You need is a special anilox & Flexocure Ivory.

	<b>Contrast ratio</b>
<b>Std UV screen</b>	<b>85 - 87</b>
<b>Std UV flexo - conv anilox</b>	<b>72 - 76</b>
<b>Flexocure IVORY conv anilox</b>	<b>80 - 82</b>
<b>Flexocure IVORY New anilox</b>	<b>85 - 87</b>



# How to replace UV Screen



The following parameters we found are needed to get UV Flexo to replace UV Screen

Parameter	Recommendation	Experience
Ink formulation	Flexocure Ivory	UFW90002
Anilox	High Volume engraving Lines 80 – 120 l/cm Volume 20 – 30 cm <sup>3</sup> /m <sup>2</sup>	ART engraving Praxair Kurt Zecher Harper
Tape	Tapes rec. for solid printing	52382, 52015, 52017 from Tesa 3M1815 from 3M 411 from Sprint
Plate	Hard, caped	FAHD from BASF/XSYS DPS + DPN from Cyrel

