Flexocure ∑ II

Ink for future
demands Today!

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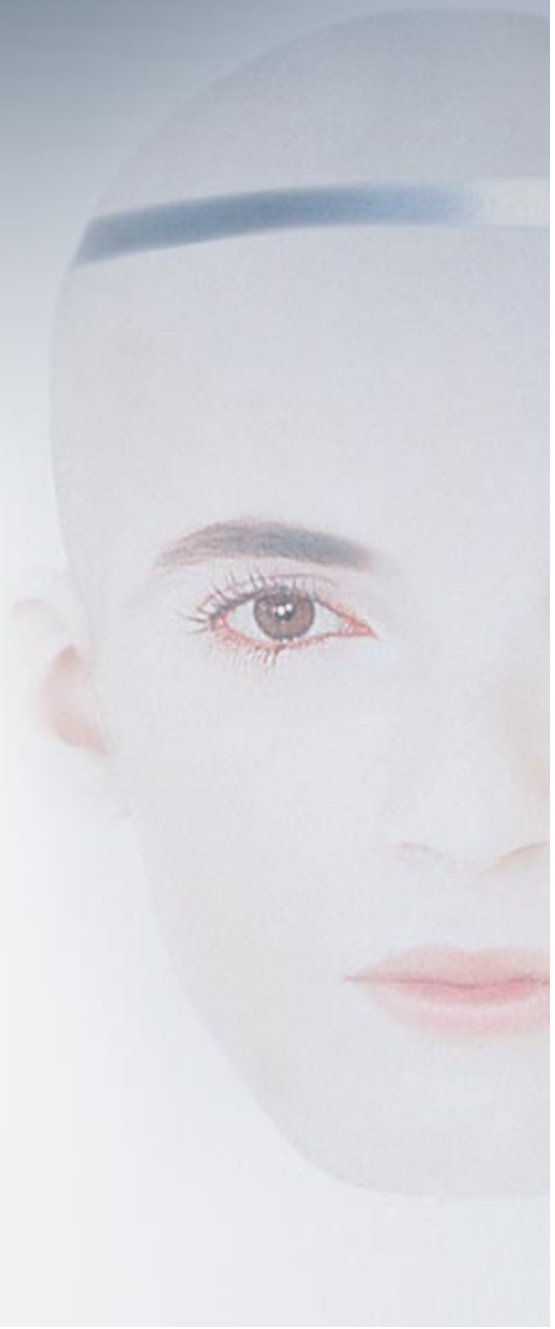
Flexocure Σ II

Modern UV Flexo ink for Labels!

- Faster printing speed & high colour strength ensures productivity
- Higher density and lower dot gain gives excellent printability
- Improved ink duct behaviour & plate transfer ensures better press performance & mileage
- Very good adhesion to a wider range of papers & synthetic films
- Improved hold-out on paper substrates gives higher gloss and higher densities
- One ink for all substrates improves profitability & productivity
- Excellent in combination with CombiWhite

Flexocure Σ II
Portfolio

- Process colours
  - UFZXXX82 – High strength
  - UFZXXX83 – High definition
- Pantone Basic Colours
  - UFZXXXXX



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UV flexo
applications

	Flexocure Gemini	Flexocure ∑ II	Flexocure XS	Flexocure Ivory
PS Paper Labels	• • •	• • •	•	•
PS Thermal Labels	• •	• • •	—	—
PS Film Labels	• • •	• • •	•	• • •
Unsupported film labels	• • •	• •	•	• • •
Shrink sleeves	•	•	• • •	—
Flexible packaging	• • •	—	—	•

• • • Highly recommended • Can be used - Not recommended

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UV flexo
for label applications

Material	Flexocure Gemini	Flexocure Σ II	Flexocure XS
PS Paper Labels	• • •	• • •	•
PS Thermal Labels	• •	• • •	-
PS Film Labels	• • •	• • •	• •

• • • Highly recommended • Can be used - Not recommended

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UV flexo
PS Paper

- To get optimal adhesion and printability
  - Follow recommendations from substrate supplier
  - As flexo is a “kiss” printing process is it very important to optimize the combination of anilox roller, plate and tape to get the optimal laydown which will enhance the printability and adhesion
  - UV flexo printing process is very sensitive to dust as it will give hickies in the print. Usage of web cleaning device on the web will help this.
  - The hold out can vary from paper to paper and ink system to ink system. Worst case is with low film weight at very low press speed.
  - Optimal condition for humidity is 40-60%
  - Bad adhesion can often be caused by bad curing, check the ink curing!

UV flexo
Recommendation – PS Paper

Material	Flexocure Gemini	Flexocure Σ II	Flexocure XS
Non Coated	• •	• • •	•
Machine Coated	• • •	• • •	•
Cast Coated	• •	• • •	•

• • • Highly recommended • Can be used - Not recommended

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UV flexo
PS Film

- To get optimal adhesion
  - Follow recommendations from substrate supplier
  - Surface tension needs to be above 38 dyne/cm
  - Use corona treatment if needed
  - If top coated substrates are corona treated water resistance can be reduced
  - As flexo is a “kiss” printing process is it very important to optimize the combination of anilox roller, plate and tape to get the optimal lay down which will enhance the adhesion
  - Optimal condition for humidity is 40-60%
  - Bad adhesion can often be caused by bad curing, check the ink curing!
  - The adhesion can be improved by adding adhesion promoter to the ink

UV flexo
Recommendation – PS Film

Material	Flexocure Gemini	Flexocure Σ II
PE	● ● ●	● ● ●
PE TC	● ● ●	● ● ●
PP	● ● ●	● ●
PP TC	● ● ●	● ● ●
PVC	● ●	● ●
PET	● ● ●	● ● ●
BOPP	● ●	●

● ● ● Highly recommended ● Limited use - Not recommended

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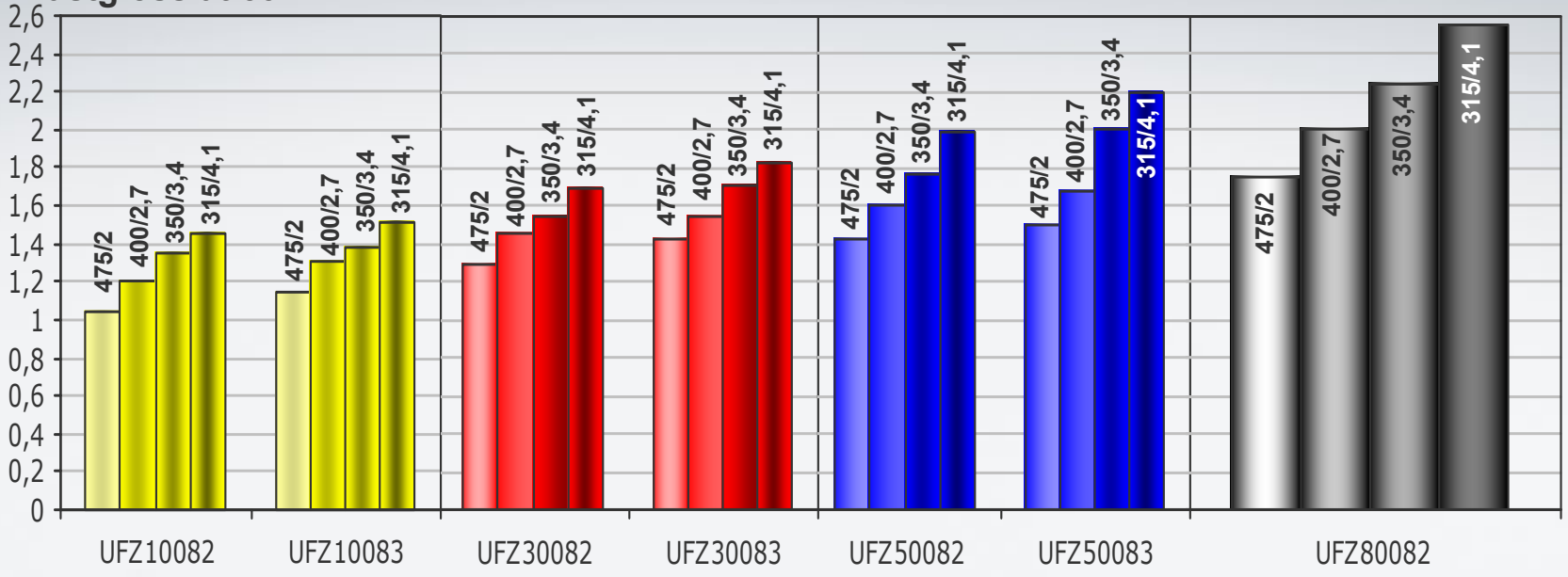
Flexocure Σ II

Density – Process inks

Printed with Nilpeter press FAH plate from Flint Group Narrow Web, Harper anilox on Castgloss at 60 m/min



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Flexocure Σ II

Superb performance

- Excellent print performance on papers (from Vellum until cast coated).
- Flexocure Σ II remains open with sharp dots over long runs.

Start | After 30000 m

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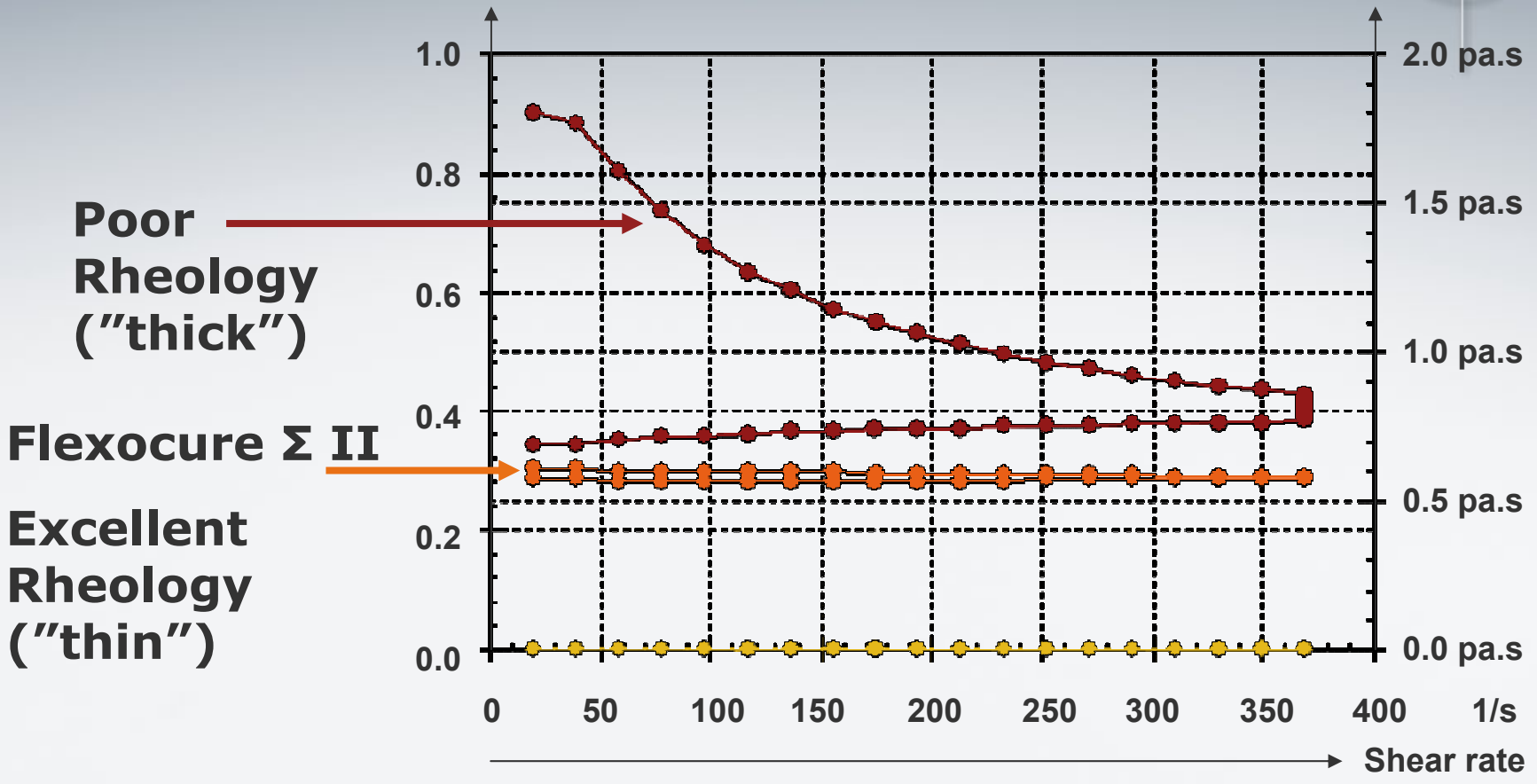
Flexocure Σ II

Rheology profile



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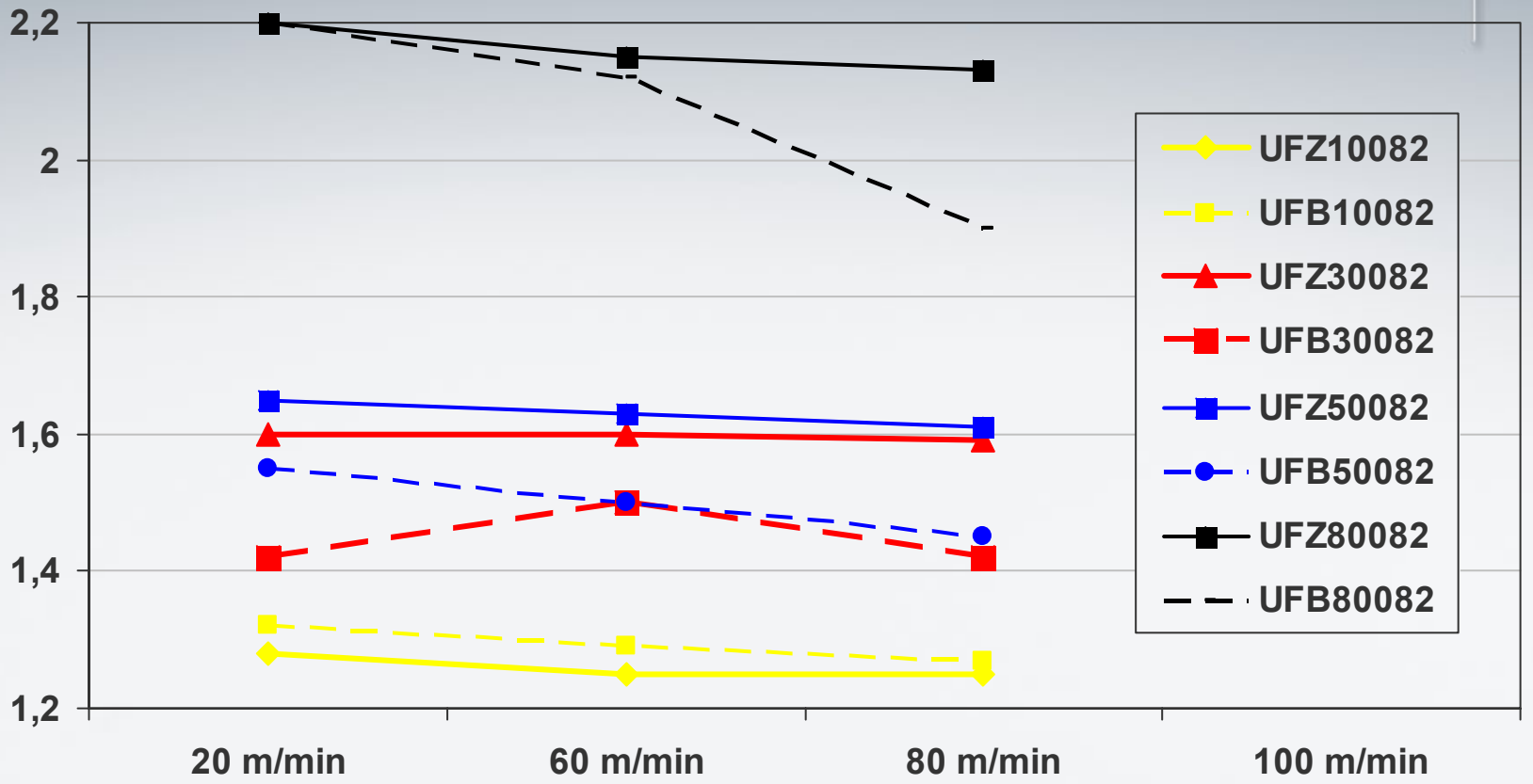
Flexocure Σ II

Density stability



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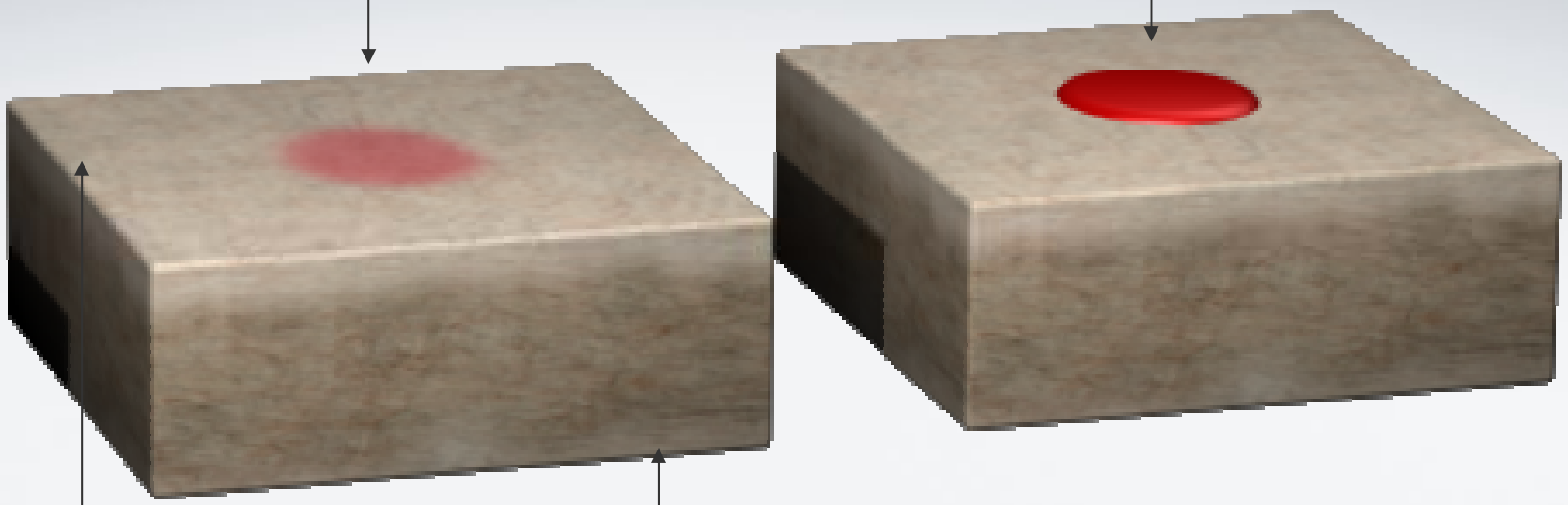
Flexocure Σ II

Excellent Hold out on all types of Label Paper

Some UV flexo Inks absorbs
easy into paper

Flexocure Σ
Shows excellent Hold out



Coating (Single/Double)

Reverse Side Treatment

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Flexocure Σ II
Hold out

- Excellent print performance on all types of papers (from Vellum until cast coated).
- Improved dispersion technique make inks more homogenous
- State of art resin and monomer technique provides superb hold out and gloss

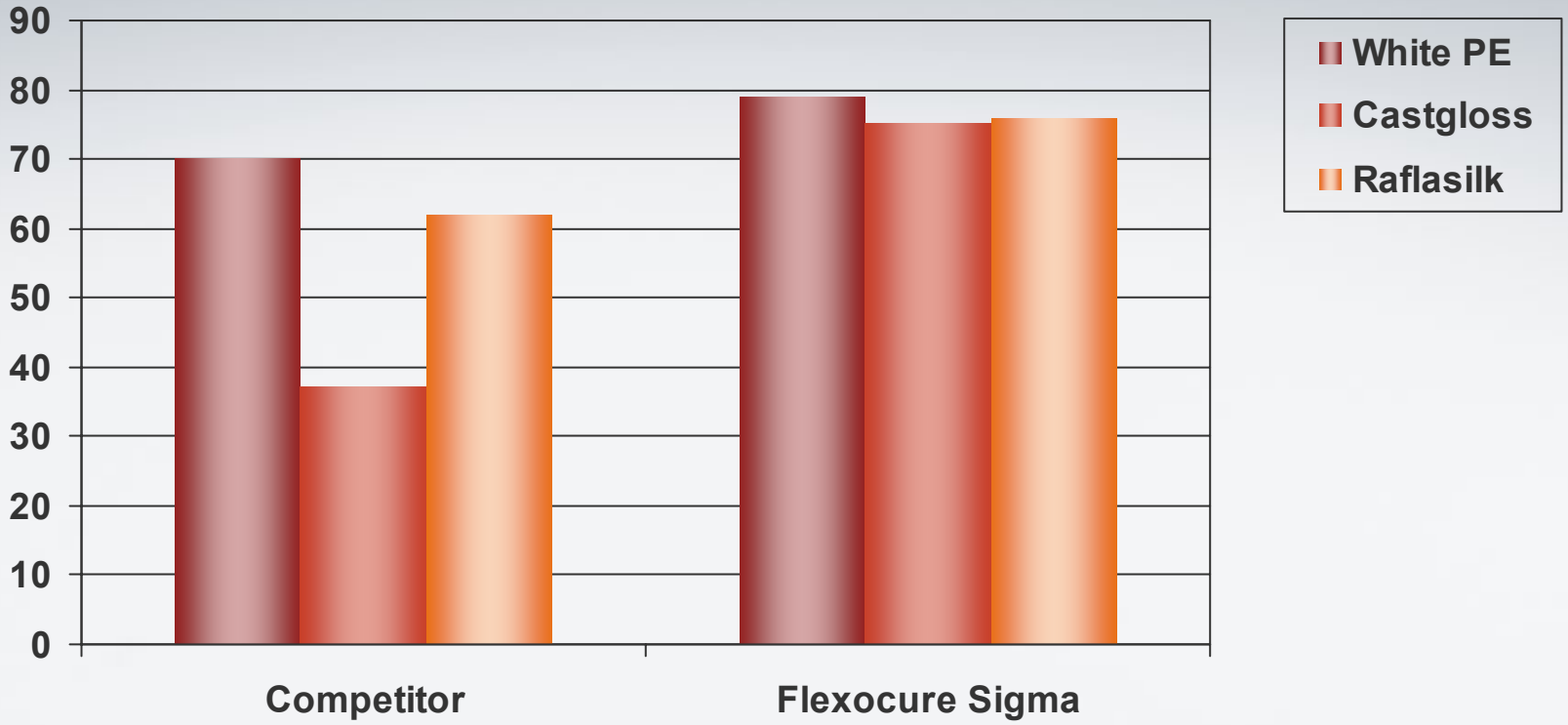
Material	Flexocure Σ II
Vellum	• • •
RalfaCoat	• • •
RaflaGloss	• • •
Raflabright	• • •
Castgloss	• • •
MC90	• • •
FassCoat	• • •
Fassgloss	• • •
High Gloss White	• • •

• • • Highly recommended • Limited use - Not recommended

Flexocure Σ II

Better hold out - Higher gloss

FAH plate, anilox 160/6 at 20 m/min



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Flexocure Σ II
Adhesion

- To get optimal adhesion
  - Follow recommendations from substrate supplier
  - Surface tension needs to be above 38 dyne/cm
  - Use corona treatment if needed
  - Optimal conditions for humidity is 40-60%
  - Bad adhesion can often be caused by bad curing, check the curing of the ink!

Material	Result
Cast coated paper	• • •
Machine coat paper	• • •
TC Thermal paper	• •
UNC Thermal paper	-
PE	• • •
PE TC	• • •
PP	• •
PP TC	• • •
PVC	• •
PET	• • •
BOPP	• •

• • • Highly recommended • Limited use
- Not recommended

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Flexocure Σ II

- High Density creates opportunity
  - Flexocure Σ have the highest possible density at low film thickness. Average across range is 1.7 g/m^2 to hit Pantone colours and 0,5 – 0,8 g/m^2 to hit Process density. This will make it possible for printers to produce more complex labels using only one print station, when before needing two units to print e.g. text/solids in combination with vignettes and screens.
- High density reduces costs
- Excellent cure response improves productivity

Flexocure Σ II

- High Density creates opportunity
- High density reduces costs
  - Thanks to the strength of Flexocure Σ it will not only reduce the ink consumption (same or higher density at lower ink thickness) - It will also save plate costs, since only one plate is needed for jobs combining text and vignettes or heavy solids with fine line barcodes.
- Excellent cure response improves productivity

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Flexocure Σ II

- High Density creates opportunity
- High density reduces costs
- Excellent cure response improves productivity
  - Ink range needs to be balance and all shade cure the same. So when a extra strong "punchy shade" Flexocure Σ enables you to improve strength without reducing cure speed. Cyan cures at 80 m/min with density 2.5.

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