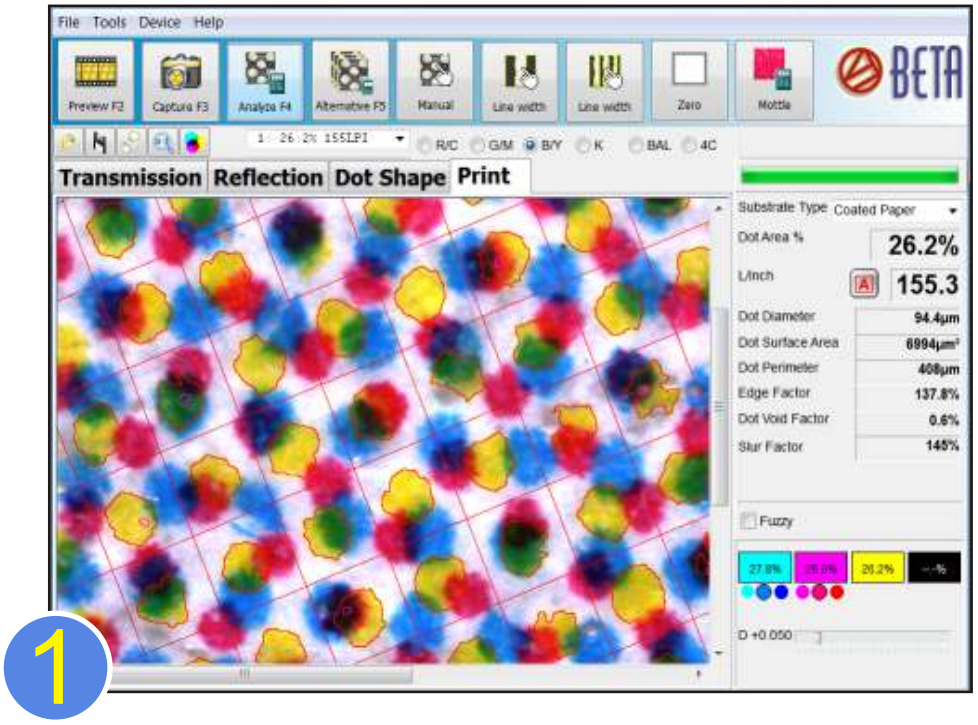
BETA INDUSTRIES
The Quality Control Company

Betaflex Pro Color Separation Analysis

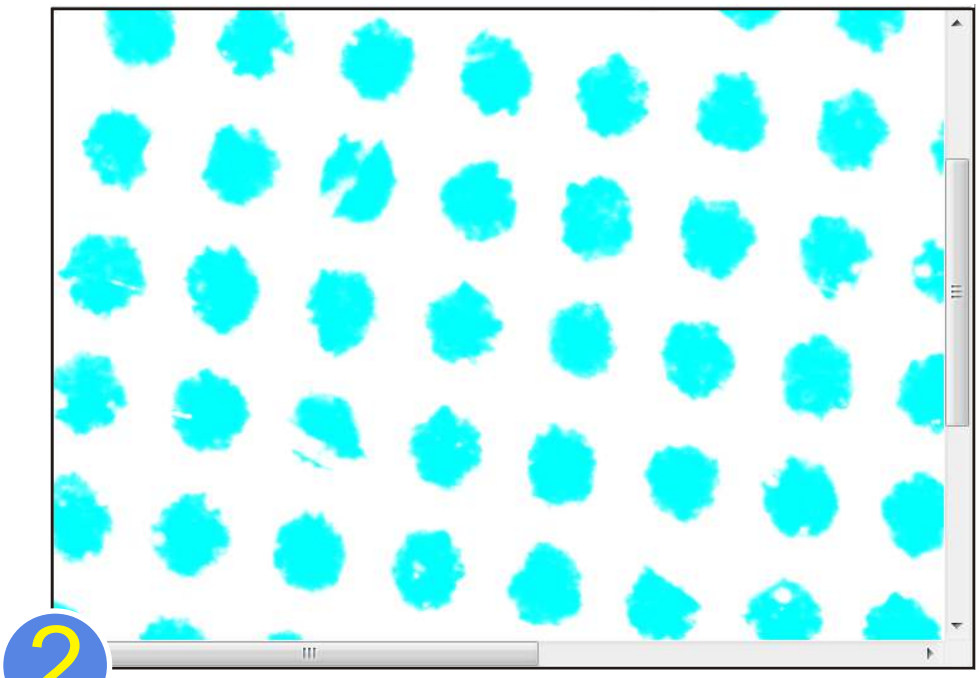
Figure 1 Powerful color separation and analysis functions offer insight into press performance and ink-substrate interaction. The full color view is generated from three color separation exposures, captured at the full camera resolution. This example of a gray balance target has already been simultaneously analyzed for C, M, Y dot area as shown at the bottom. The yellow ink image is highlighted in



1

Figure 2 Each process ink image can be separated, display, and analyzed.

When a gray balance target develops a color cast the cause of the problem must be diagnosed and fixed to avoid wasting material and time.



2

FIGURE 3 When a gray balance target develops a color cast the cause of the problem must be diagnosed and fixed to avoid wasting material and time.

The sample in displayed a yellow cast and was rejected due to excessive dot gain, blamed on a bad yellow plate. Analysis of the print showed a very high Slur Factor of 170% in the yellow, compared to 134% in the cyan.

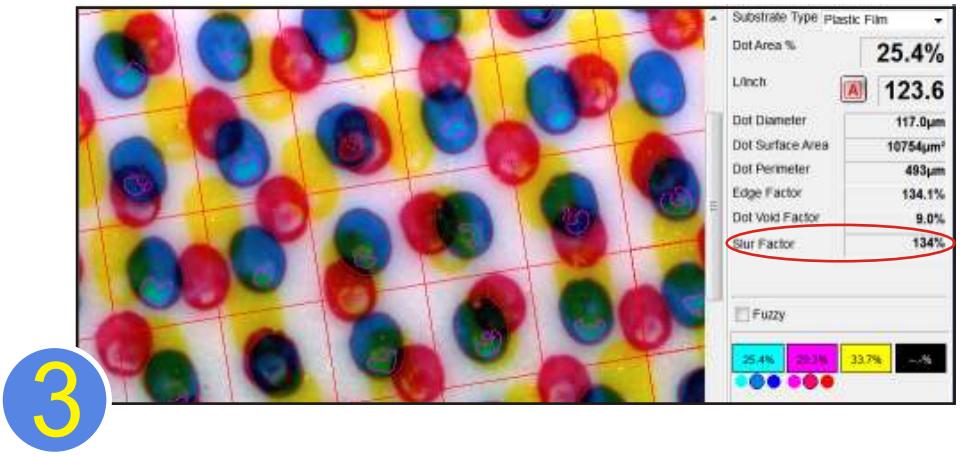


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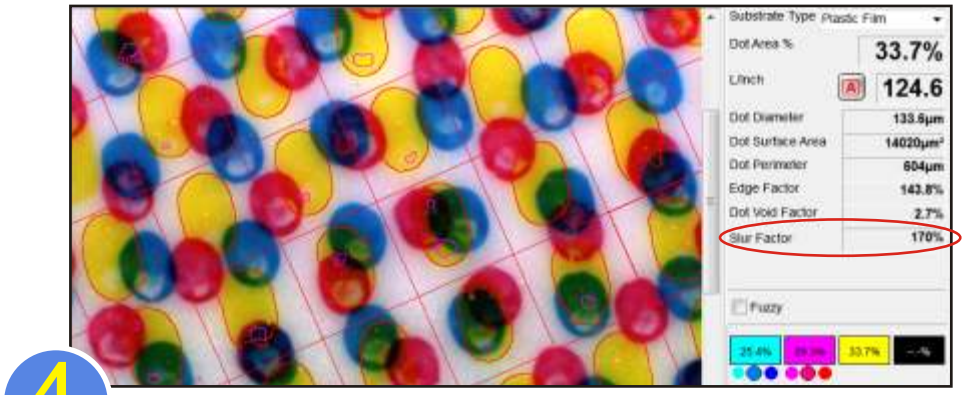
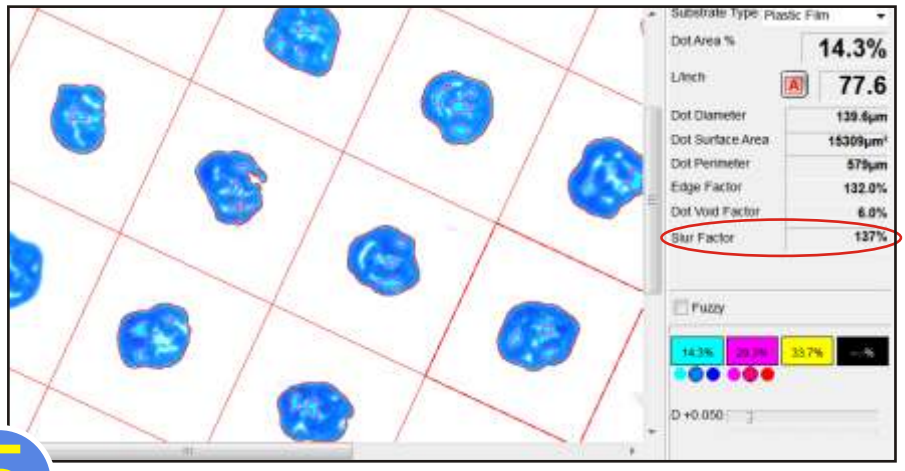
FIGURE 4 Analysis of the print showed a very high Slur Factor of 170% in the yellow, compared to 134% in the cyan of Figure 3. Inspection of the yellow plate documentation showed a well-formed round dot, indicating a web tension problem on press.



4

FIGURE 5 While excessive dot gain is a common problem, the opposite situation can also arise. Flexo printing, particularly on plastic substrates, often creates dots with a substantial portion of the dot carrying little or no ink. Commonly referred to as “doughnuts” these dots produce lighter tone values than anticipated. The effect is measured as 6% with the Dot Void Factor shown here. Calculated as 6% of the 14.3% total dot area, the effect is not very serious, causing a loss of effective dot area of 0.85%. On small highlights the effect can sometimes cause the loss of the majority of the tone value



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