Laser Ablative Mask System (LAMS) plates

LAMS plates have a minimum printable dot ranging from about 4% to 10%, depending on screen ruling and physical configuration.

A typical flexographic press device condition using LAMS plates at 133 lpi has a minimum printable dot of 7%. Applying a bump curve that maps 1% to 7% produces the following behavior:

- The color change from the substrate to a 1% magenta dot is **6.1 DeltaE**—a very noticeable difference. The 1% tint has a tonal response or EDA of **15%**.
- The color change from the substrate to a 2% magenta dot is **8.2 DeltaE**—less than twice that exhibited by the 1% dot; the 2% tint has an EDA of **17%**.

The color change from substrate to 1% is much larger than that from 1% to 2% The response is similar to that of the Flexcel NX plates, but the flexo discontinuity is larger with LAMS plates (that is, the color change from substrate to 1% tint).

The flexo discontinuity is not caused entirely by the inherent response of flexographic printing. In the case of LAMS plates in particular, halftone dots smaller than the minimum printable dot are capable of forming on the plate and transferring ink to the substrate; but their formation and behavior is unreliable and unstable, so they are eliminated by using bump or cutoff curves. It is the combination of bump or cutoff curves, along with the inherent device response, that determines the input tint value at which the discontinuity occurs and the magnitude of its color change.

For LAMS plates, it's recommended that you characterize the press with a linear transfer curve. Use the default **Mindot Tint In** value and increase the **Minimum Tint Out** value to the minimum printable dot.