

# Discontinuous tonal response and colorimetric response

When ColorFlow software models the color response of flexographic printing with flexo discontinuity, the resulting color response is called a discontinuous color response. ColorFlow software accurately represents the flexo discontinuity in both types of a color response: tonal response and colorimetric response.

The input tint value at which the discontinuity occurs, and the corresponding color response of a spot or process ink channel, is called the Mindot of the discontinuous color response. If a discontinuous color response has tonal and colorimetric components, they have the same Mindot **Tint In** value.

- Discontinuous tonal response
- Discontinuous colorimetric response

## Discontinuous tonal response

Tonal response comprises the EDA of each ink channel whose response is measured. If a process or spot ink has a flexo discontinuity, its tonal response has a step change, at the Mindot **Tint In** value, from zero to the EDA value printed by the Mindot. As with continuous tonal color responses, the tonal response component of a discontinuous color response is used for tonal match curve generation, and is reflected in tonal response graphs of devices, device conditions, PCOs, and SCOs.

## Discontinuous colorimetric response

Colorimetric response comprises the CIELAB color response of process ink ramps and overprinted combinations. It also includes the CIELAB color response of spot ink ramps.

If a process or spot ink has a flexo discontinuity, its colorimetric response has a step change at the Mindot **Tint In** value, from the substrate color to the color printed by the Mindot. As with continuous tonal color responses, the colorimetric response component of a discontinuous color response is used for gray balance curve, device profile, and DeviceLink generation.