

PRIMER INTELLIGENCE

THE ART OF SMOOTH ROLL APPLICATION

Primer application is not limited to gravure systems. Many converters have found smooth roll applicators well suited to apply MICA water based primers.

A smooth roll applicator effectively delivers thin coat weights of low viscosity primers such as **MICA A-131-X**. Compared to gravure coating, the smooth roll system uses the same rolls for every job. The impression roll does not need to be undercut, and therefore the applicator can accommodate varying web widths. Smooth roll applicators are less likely to entrain air (and generate foam) because, unlike gravure, there are no empty cells returning to the primer pan. Cleanup is simplified because there are no cells prone to plugging.

Here are some keys to successful smooth roll application.

- ❖ To achieve high line speed and reduce slinging:
 - employ splash guards at roll ends
 - reduce pickup roll (direct) or metering roll (offset) speed relative to line speed
- ❖ High line speeds can lead to bowed rolls, resulting in uneven application. This can be overcome by increasing the roll diameter.
- ❖ To get a uniform coating and avoid backside coating:
 - select a hard rubber impression roll
 - vary the nip compression
 - vary the speed and/or direction of the pickup roll
- ❖ Never starve the system. It is important to maintain an adequate flood at the nip.

