

## LED-UV Metallics

The **LED-UV Metallics** Pantone inks are radical curing, solvent free, stable one-component inks, based on aluminum and gold bronze pigments. Suitable for paper, board and various non absorbent substrates. These inks are equally suitable for classic UV curing (mercury vapor lamps) and for the LED sector (LED lamps).

The **LED-UV Metallics** Pantone series is characterized by:

- The formulation is specifically developed for food packaging applications: under selected test conditions migration limits are underscored
- Raw materials are selected with preference for high purity materials.
- White spirit and mineral oil are excluded from the pigment production process.
- GMP compliant production of LED-UV METALLICS products (minimized risk of cross contamination) is guaranteed.
- LED-UV Metallics products are UV curing inks for offset printing on paper and board, e.g., folding cartons

The above fundamentally differentiates **LED-UV Metallics** series from standard UV or UV/LED Offset inks.

Therefore, Deutsche Druckfarben recommends this ink series for selected production of packaging for food, beverages and tobacco (indirect food contact). Nevertheless, the customer has to proof the suitability of this ink series for the specific application via a migration test or other measures (e.g., use of functional barriers in the packaging design). The inks are not recommended for direct food contact.

As with all metallic inks, the substrate has an influence on the final result. Very absorbent or uneven substrates often cause poor pigment orientation resulting in inferior brilliance. This is true not only for optical properties such as brilliance and hiding power, but also for printing properties such as adhesion, transfer and curing. In some cases, the use of primers for an improvement of the substrate surface is advantageous.

The inks are suitable to be overprinted in-line. It is recommended to cure before varnish is applied to preserve the metallic effect.

Over lacquering reduces the metallic effect. This influence, as well as the cohesion depend very much on the lacquer and should be tested prior to any commercial use.

**Shelf life:**      **6 months**

*This technical instruction sheet is designed for your information and reference. It is based on and conforms to our current knowledge. However as actual application is affected by many factors over which we have no control, we are not liable for printing failures.*