



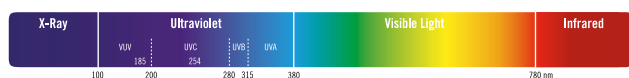
Smart UV and IR solutions from offset to digital printing

Specialty light sources for efficient curing and drying processes

Books, brochures, labels, forms, foils or packages are printed using different methods and are covered with a protective layer of varnish. However, what they all have in common is that the printing ink needs to be completely dried or cured before processing of the products can continue.

Depending on the type of ink, paint or varnish, UV or IR technology or even a combination of both is used for curing and drying. This inevitably takes place with energy consumption. Today, it is well worth the effort to examine these printing processes scrupulously and

find techniques which offer the best results and the greatest possible energy efficiency. From UV to IR, Heraeus Noblelight offers the entire spectrum of specialty light sources, LEDs and even complete systems for curing and drying of ink. Chemical formulations and materials can be tested and Heraeus experts consulted to choose the optimal solutions for each process. Heraeus has many years of experience with specialty light sources for endusers as well as for OEMs.



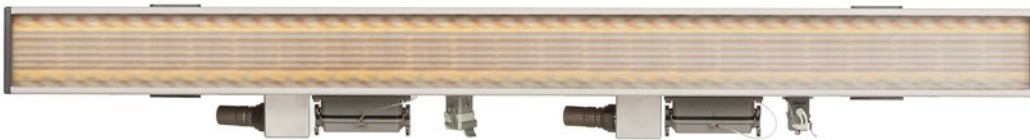


UV and IR for drying and curing printing ink

Printing processes were the first processes to use UV and IR systems. They offer significant advantages, such as better print quality and production speeds while reducing VOCs and operating costs. Depending on the specific print process and type of ink UV lamps, IR emitters, or even a combination of both, provide an efficient and reliable solution for curing and drying.

UV technology brings advantages

- Reduced lead times due to quicker changeovers
- Higher production rates and increased printing consistency
- More durable, higher scratch and chemical resistance
- Environmentally friendly with no VOCs
- Energy cost savings
- Expand capabilities due to ability to print on non-porous and heat sensitive substrates



UV LEDs with special optical concepts set new standards: Semray® UV5000+

Intelligent IR technology

- Infrared emitters transmit heat without contact, thus losses of transmission media, such as air, are minimized
- Short response times make heat transfer controllable
- Infrared emitters are precisely adjusted to the product with regard to wavelength, voltage, power and shape
- Precisely adjusted infrared emitter systems increase process speed, improve quality and save time and energy



Infrared heat combined with intelligent air management fastens print drying

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