adphosNIR® Photonic Heating NIR-MiniLab



The adphos NIR-MiniLab is a flexible drying and curing system for research and development or prototype production of printed electronics or other printing applications with inks applied via flexographic, screen, gravure or inkjet printing.

Efficient and Effective Design

With adphosNIR® technology you can quickly evaluate process parameters. Robust design allows use in production environments with sheets widths of up to 300 mm (12") and transport speeds of up to 60 m/min (200 fpm). Straightforward design allows you to spend less effort on set up so that precious time can be used for the job at hand. The system features with an inlet part to get the substrate proper on the transport as well as a collector at the outlet for collecting the processed samples. Furthermore it is possible to fix various adphosNIR® modules to the system like line heaters, area heaters in different sizes or special modules. The system is designed to be placed on a desk or could be equipped with a pedestal.

The speed of the transport as well as the power could be varied at the operator panel. Also the current values are displayed there.

Lower Cost

UV

The NIR-MiniLab features adphosNIR® technology to quickly dry/cure water based inks, nano-inks and coatings on paper and films at a lower investment cost.



Specification for NIR-MiniLab Sintering/Curing/Drying System:

Heated width: up to 250 mm, depending on the used module

Suitable for different modules like line heaters and area heater with up to 12 kW.

Electrical Specifications:

Drying/Curing System: up to 12 kW,

230 VAC/400 V3AC ± 10 % 50/60 Hz

Transport Specifications:

- Full Frame Construction
- Operator E-Stop
- Vacuum Transport
- Variable Speed Transport (up to 60 m/min)

Material Size: min. 105 mm x 70 mm Material Size: max. 300 mm x 200 mm Material Thickness: max. 38 mm

Physical Size: 1,380 x 660 x 620 mm (1,360 mm)

Various adphosNIR® modules:

- NIR42-250
- NIR84-250
- NIR126-250
- NIR252-250
- NIR126-125
- NIR-DLH
- MPP-60-250
- MPP-120-250
- Special modules



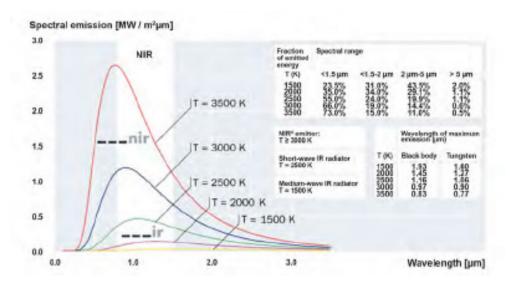
0.8 pm 1.5 pm

visible ir

1.2 pm 2 pm 3 pm short wave medium wave long wave

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Why adphosNIR®?

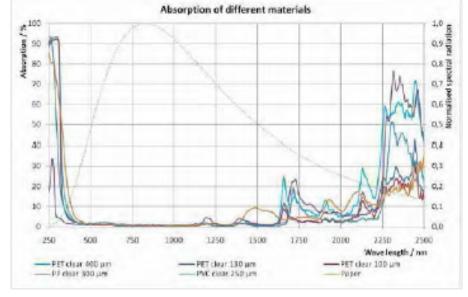


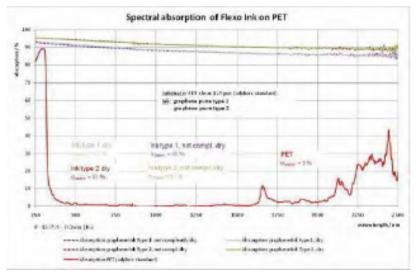
adphosNIR® is not just another IR-Technology.

Ultra short wave length energy (T>3,000 - 3,500°K)

Very high energy density up to $1,000 \text{ KW/m}^2(93 \text{ KW}^{\circ}\text{ft}^2)$

Many commercially available films are nearly transparent to adphoNIR® energy





adphosNIR® preferentially heats ink while minimizing direct heating of film or paper

