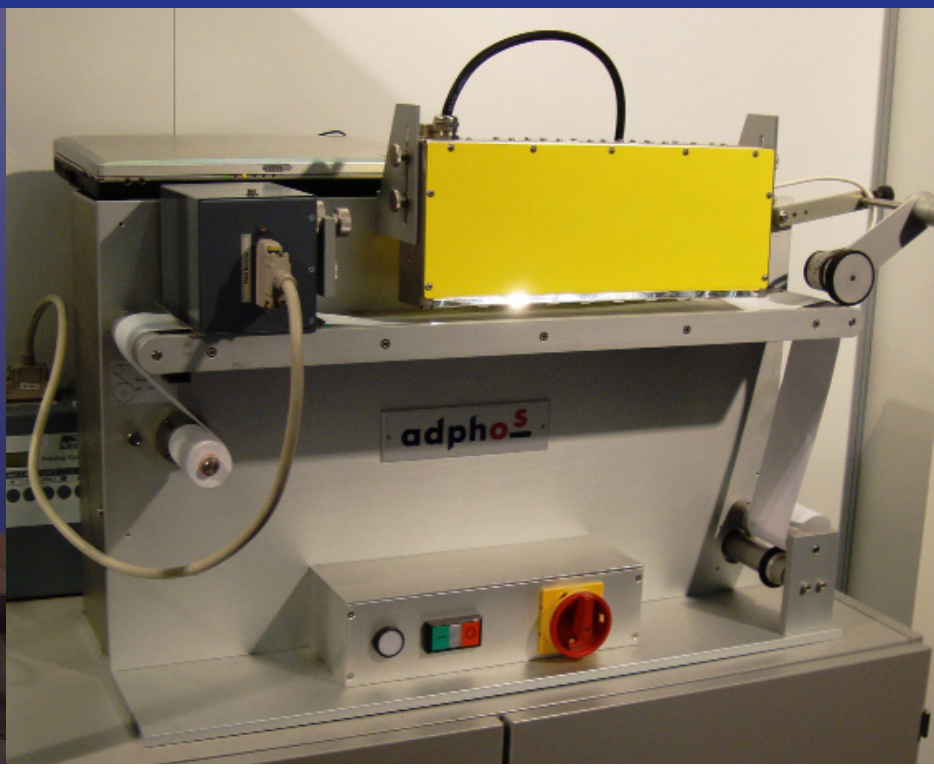
R2R (Roll to Roll) Transport System

R&D and Prototype Curing/Drying System/Sintering



Adphos R2R (Roll-to-Roll) Transport Systems are a family of table top laboratory and pilot production transports for testing and validation of drying, curing and sintering applications for a multitude of inkjet technologies.

Lab Testing to Full Production - Lab to Fab

Moving from printed electronics concepts in the lab to full production can involve great risks of manufacturability. Products that are currently produced on an x-y machine can now be evaluated on a low cost, high speed transport to simulate your actual production process.

Maximum Adaptability

R2R Systems provide an open interface to various inkjet heads including: FUJIFILM Dimatix, Hewlett Packard, Kyocera, and Konica Minolta.

A large selection of adphosNIR® drying, curing and sintering equipment is available for integration with all models of the R2R-from high performance adphosNIR® combined with hot air for drying applications to focused reflectors for high density, short duration photonic processing (sintering/annealing). Please consult Adphos for different options appropriate to your application.

Specifications for Roll-to-Roll System:

Web width:	Standard(base)	45mm (1.75”)
	Option A	75mm (3”)
	Option B	120mm (4.25”) (120mm)
	Option C	6” (160mm)
Speed:	Standard	up to 100 ft/min
Option 1		up to 300ft/min(100m/min)
Option 2		up to 500fit/min (150m/min)
Power supply/control		Integrated

Web tension control

- Small PLC
- Potentiometer for speed adjustment
- Power infeed for up to 10 kVA (Base), larger on request as option
- Adapted the R2R-system as desktop table device

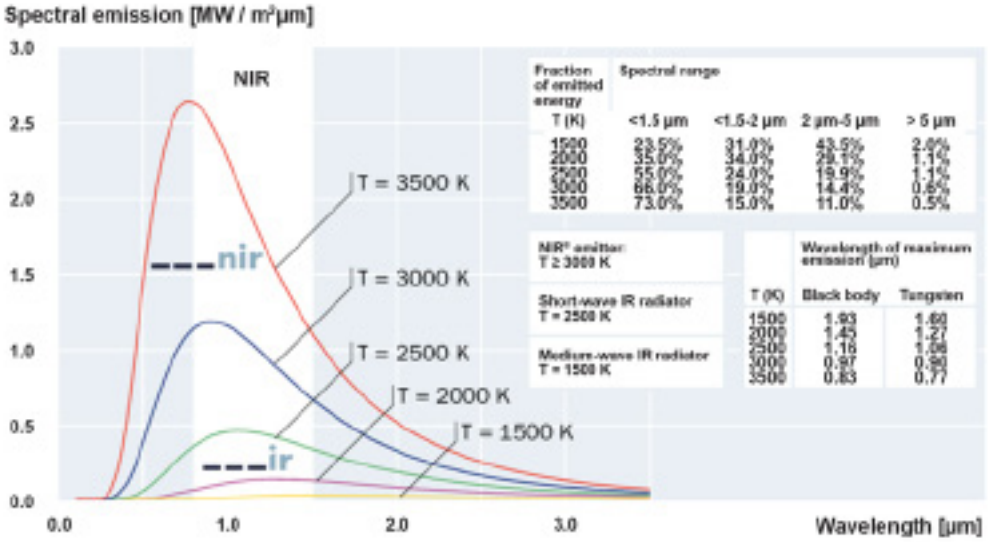
Optional Processing Modules

- Water-cooled chill roller
- Mounting provisions for third-party drying/curing modules (UV, pulsed xenon, convection, etc)
- Flexographic, slot die or other printing systems
- Non-contacting temperature measurement systems
- Other custom integrations available upon request

adphos

Roll-to-Roll (R2R) Sys-

Why adphosNIR®?



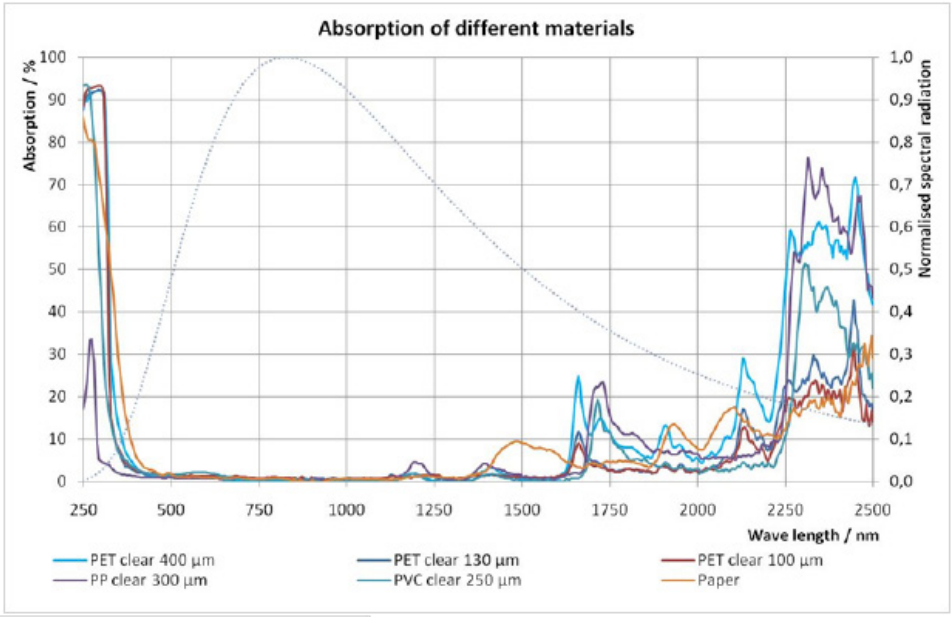
adphosNIR® is not just another IR-Technology

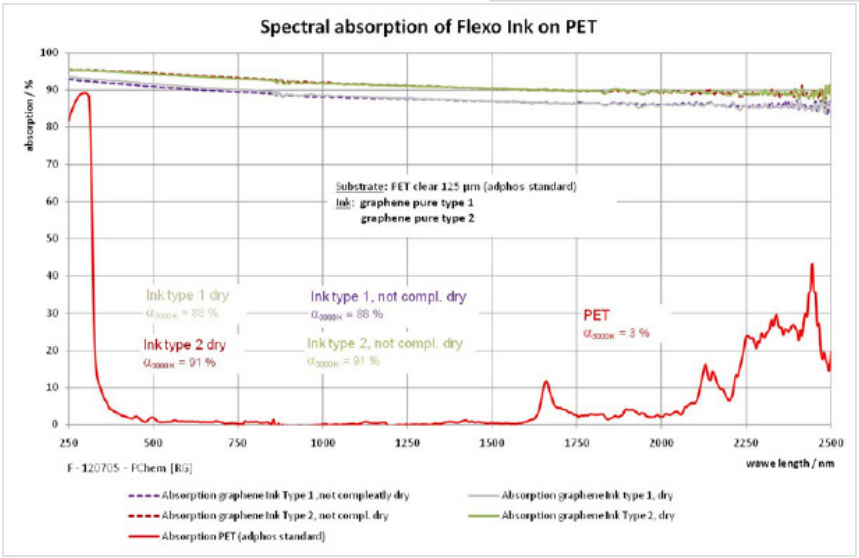
Ultra short wave lengh energy (T > 3,000 – 3,500°K)

Very high energy density up to 1,000 KW/m² (93 KW/ft²), ultimate 1,500 KW/m² (140 KW/ft²)

Highly focused reflector geometry

Many commercially available films are nearly transparent to adphos-NIR® energy





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

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