UV curing degree verification device

AcroEdge
www.acroedge.co.jp

Curea

UV curing resin measurement through glass or film

国際特許取得済
特許第4185939号

※ Design and specification may change without prior notice

Prevents damaging the sample; and determines the curing degree of surface treated by plasma or corona by non-contact method.

Non-contact, non-destructive measurement

Analysis can be done non-destructively since the measurement is executed without touching the surface of the sample, . Sample measurement can even be performed even if the UV curing resin attached to film by adhesive or the sample is in between film and glass.

Measurement principle

A built -in weak UV light is emitted incident to the sample surface and the sensor immediately measures the reflected light . In case of small amount of ultraviolet curable resin, the cured state could still be measured because the fluorescence changes as curing progresses

Real time measurement

Measurement can be completed in 0.1 s which is suitable for in-line checking. Changing the measurement over time while irradiating by ultraviolet is also possible.

In-line Inspection performance

- Confirmation of resin curing time of laminating films in production line
- UV curing resin film thickness inspection
- Adhesion of electronic device components
- Adhesion of lenses

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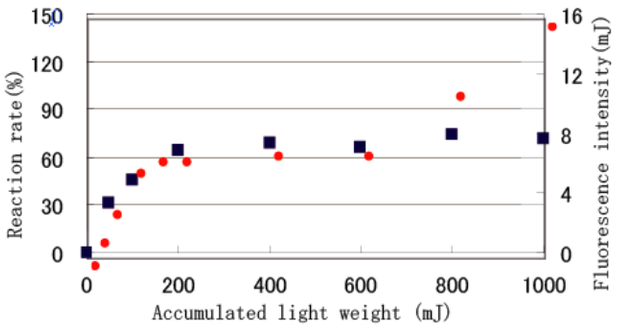
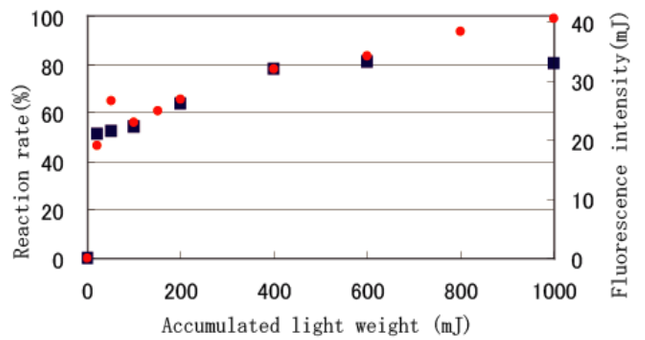
Comparison with FT-IR

Cationic UV curing resin



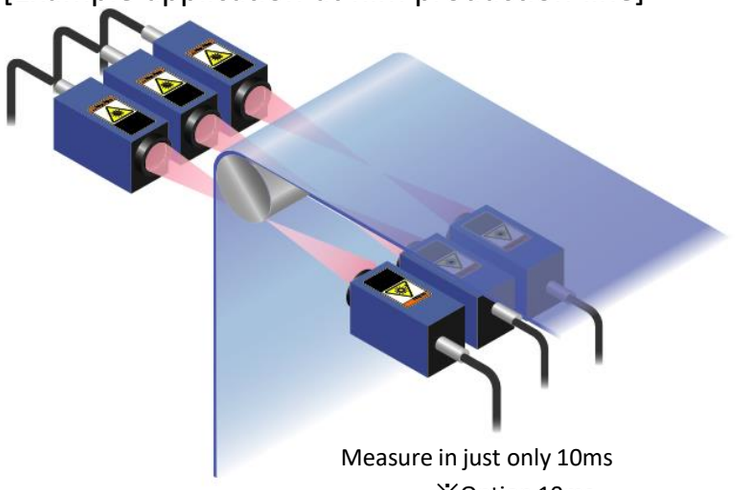
Radical curing resin



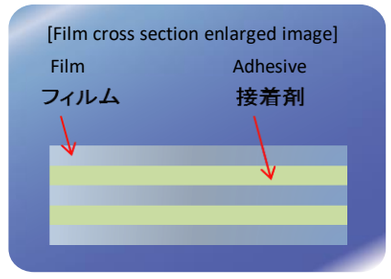
In-line inspection performance

- Confirmation of resin curing time of laminating films in production line
- UV curing resin film thickness inspection
- Adhesion of electronic device components
- Adhesion of lenses
- Confirms the hardness of syringe adhesion between syringe needle and syringe

[Example application at film production line]



Measure in just only 10ms
※Option 10ms



Curing state of resin in between films is measured by non-destructive method.

Main specification

Control unit

1.	Power	AC100 V ±10%
2.	Display alarm	Digital display 3 digits and 4 LEDs for (over incident light, light intensity controlled outside lamp)
3.	Input setting	Sensitivity offset setting
4.	Analog output	-5 ~ 5V
5.	Contact output	COM (H/L shared) NC (L output) NO (H output) each point (contact output)

Sensor unit

1.	Sensor size(mm)	W50xD75xH125
2.	Spot transit	$\varphi 2$
3.	Sensor connection cable	2m

[Device options]

- Small spot correspondence
- High speed response (10s)
- Others