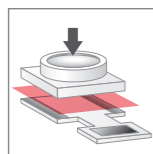


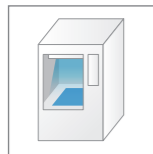
Example Uses of PRESCALE/THERMOSCALE/UVSCALE for Parts Manufacturing

Camera modules



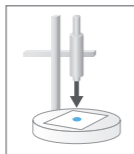
Pressure **Heat**

- Check contact and heat distribution during ACF bonding



UV

- To check the UV light amount / UV light distribution during UV curing

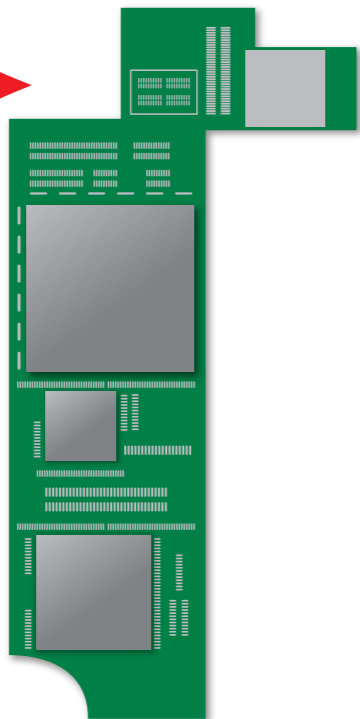


UV

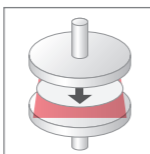
- To check the optical axis and the UV light amount / UV light distribution during temporary adhesion



Li-ion

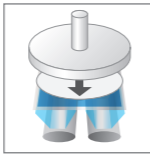


Semiconductor wafers



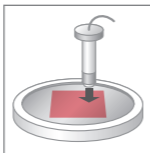
Pressure **Heat**

- Uniform pressure and check heat distribution when wafers are joined



UV

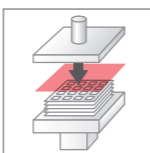
- To check the UV light amount / UV light distribution during the back grinding or dicing process



Pressure

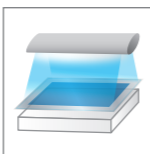
- Die collet adjustment for die bonding

Ceramic laminated device filter



Pressure **Heat**

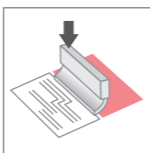
- Check contact of molds for laminators
- Check uniform pressure and heat distribution for laminators



UV

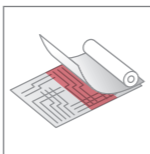
- To check the UV light amount / UV light distribution during glass sealing

Print circuit boards



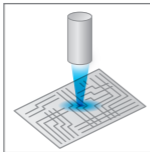
Pressure

- Squeegee pressure distribution measurement during cream solder printing



Pressure **Heat**

- Check dry film resist (DFR) laminate nip pressure and heat distribution

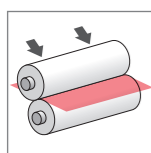


UV

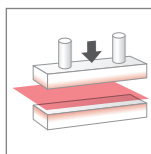
- To adjust the position of UV light and check exposure pattern when UV light is applied using laser expose equipment

Li-ion batteries

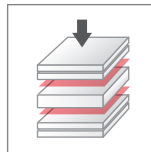
Pressure **Heat**



- Check nip pressure and heat distribution for electrode plate press



- Check aluminum laminate film crimping equipment contact and heat distribution (heat sealing)



- Check contact for cathodes/separators/anode laminating equipment

Other parts

Flash memory

- Check balancing during multilayer circuit board mounting process
- Adjusting the molds when manufacturing the semiconductor package

Crystal transducers

- Check contact when cutting crystal
- Adjusting the cutting equipment

Connectors

- Check contact for injection molding machine molds

FUJIFILM Measurement Film Solutions

Pressure measurement film

PRESCALE

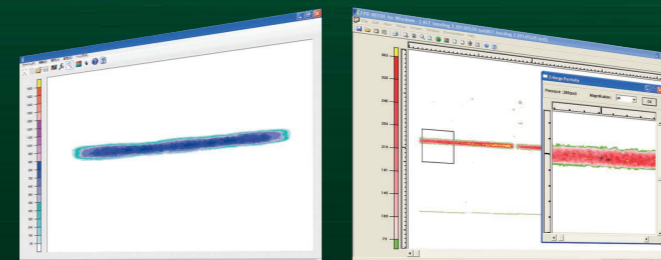
Heat distribution measurement film

THERMOSCALE

Ultraviolet Light Amount Distribution Measurement Film

UVSCALE

Utilized in Smartphones and Tablet Computers

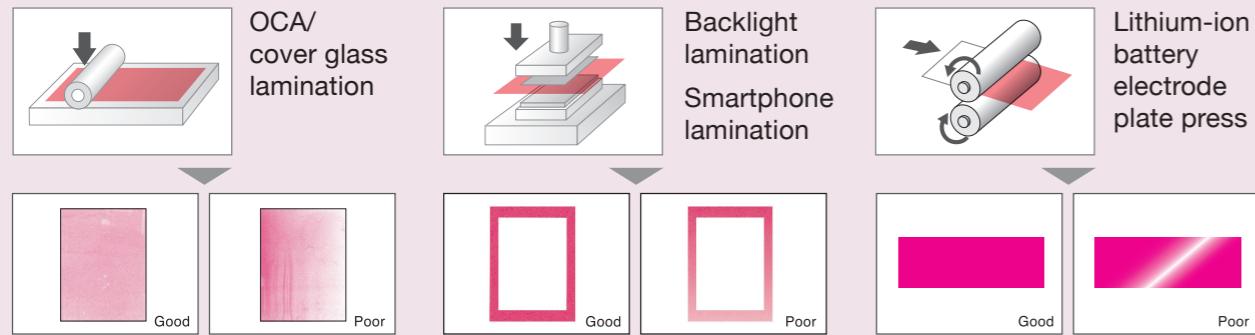


<http://www.fujifilm.com/products/prescale/>

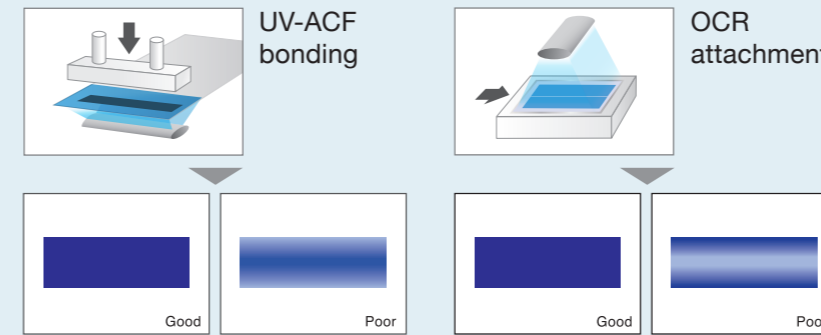
* The specifications and performance described in this catalog may change without notice to improve the product. The images used here are examples and differ from actual measurements.

Utilizing PRESCALE, UVSCALE and THERMOSCALE in LCDs, Touch panel Manufacturing and the Smartphone Assembly Process

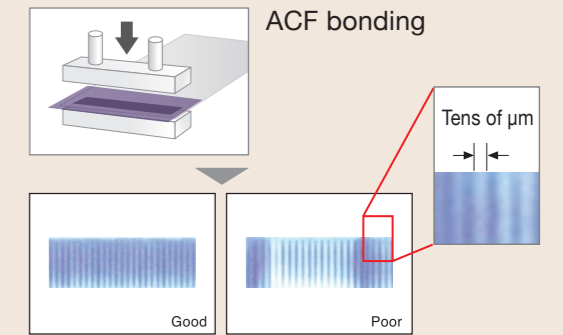
PRESCALE measurement results



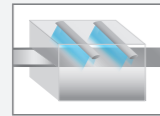
UVSCALE measurement results



THERMOSCALE measurement results



Liquid crystal panel films and glass for liquid crystal panels process



- UV
- To check the UV light amount / UV light distribution during UV coating

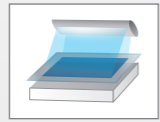
LCD Process

Color filter exposure



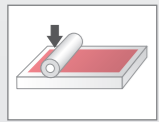
- UV
- To check the UV light distribution and adjust the position of UV light when UV light is applied using UV light exposure equipment for color filters

Alignment film coating



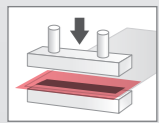
- UV
- To check the UV light amount / UV light distribution during forming an alignment film

Polarization plate lamination



- Pressure
- Check nip pressure for polarization plate lamination equipment

Driver IC ACF bonding



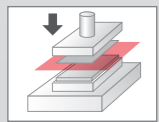
- Pressure Heat
- Check contact and heat distribution during ACF bonding

UV-ACF bonding



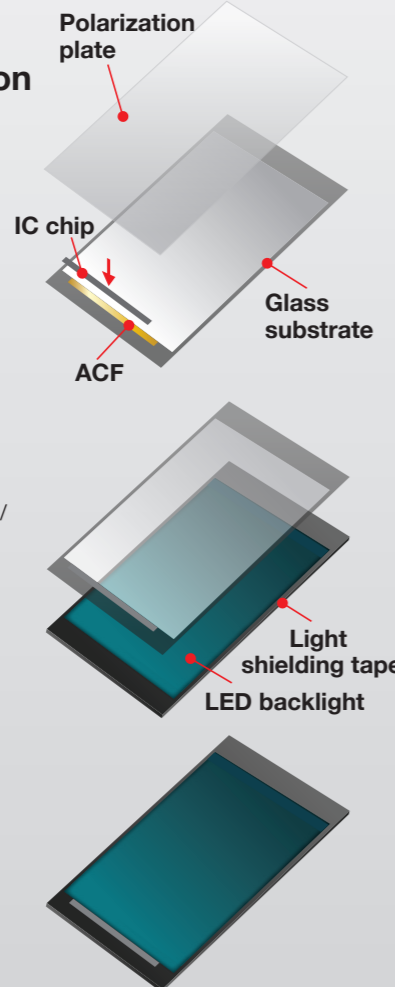
- UV
- To check the UV light amount / UV light distribution during UV-ACF bonding

Backlight lamination



- Pressure
- Check uniformity for LED backlight lamination equipment

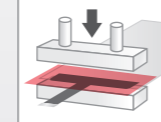
Small-and-medium LCD modules



Smartphone Assembly Process

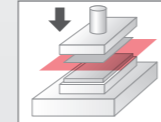
Touch panel/LCD lamination

ACF bonding



- Pressure Heat
- Check contact and heat distribution during ACF bonding

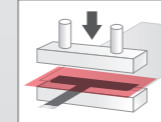
OCA Lamination



- Pressure
- Check uniformity for touch panel and LCD lamination machines

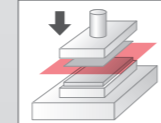
Touch panel + LCD / smartphone lamination

ACF bonding



- Pressure Heat
- Check contact and terminal position during ACF bonding

OCA lamination

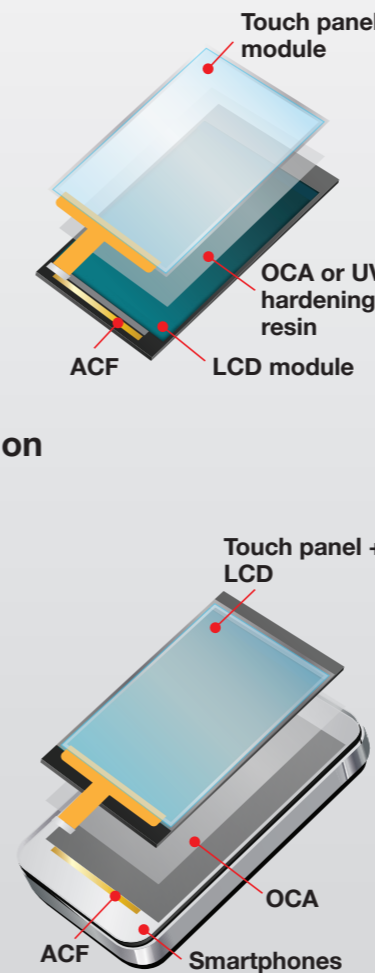


- Pressure
- Confirm uniformity for smartphone lamination machine

UV coating



- UV
- To check the UV light amount / UV light distribution applied to smartphones



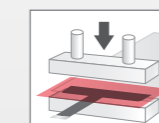
Completed product



Smartphone
Tablet PC

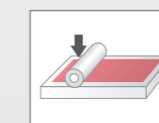
Touch panel Process

Controller IC ACF bonding



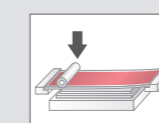
- Pressure Heat
- Check contact and heat distribution during ACF bonding

Touch panel / OCA lamination



- Pressure
- Check roller uniformity and stage parallelism during OCA lamination

Touch panel / cover glass lamination



- Pressure
- Check roller uniformity and stage parallelism during touch panel / cover glass lamination



- UV
- To check the UV light amount / UV light distribution during OCR attachment process



Touch panel module