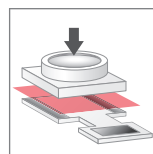


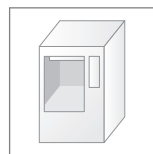
## Example Uses of PRESCALE/THERMOSCALE/UVSCALE for Parts Manufacturing

### Camera modules



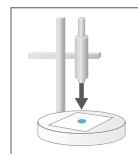
**Pressure** **Heat**

- Check contact and heat distribution during ACF bonding



**UV**

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



**UV**

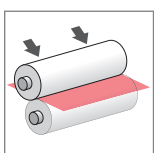
- To check the optical axis and the UV light amount / UV light distribution during temporary adhesion



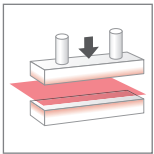
Li-ion

### Li-ion batteries

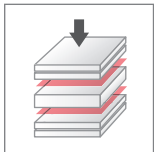
**Pressure** **Heat**



- 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

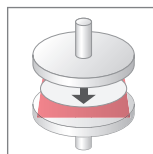
#### Crystal transducers

- Check contact when cutting crystal
- Adjusting the cutting equipment

#### Connectors

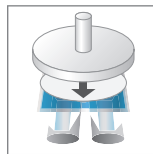
- Check contact for injection molding machine molds

### Semiconductor wafers



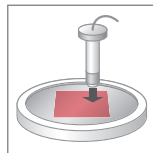
**Pressure** **Heat**

- Uniform pressure and check heat distribution when wafers are joined



**UV**

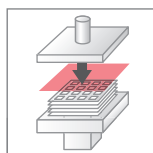
- To check the UV light amount / UV light distribution during the back grinding or dicing process



**Pressure**

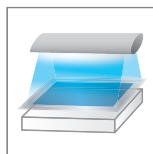
- Die collet adjustment for die bonding

### Ceramic laminated device filter



**Pressure** **Heat**

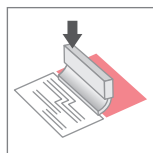
- Check contact of molds for laminators
- Check uniform pressure and heat distribution for laminators



**UV**

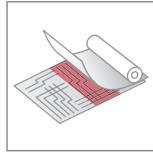
- To check the UV light amount / UV light distribution during glass sealing

### Print circuit boards



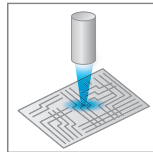
**Pressure**

- 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

**FUJIFILM**  
Value from Innovation

## FUJIFILM Measurement Film Solutions

Pressure measurement film

**PRESCALE**

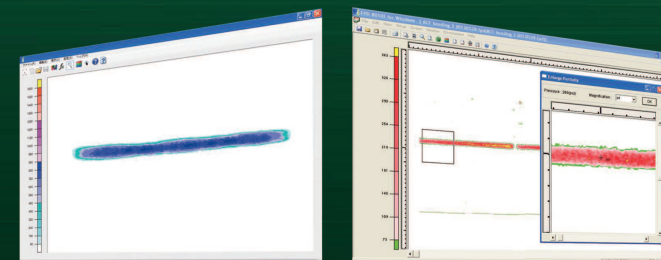
Heat distribution measurement film

**THERMOSCALE**

Ultraviolet Light Amount Distribution Measurement Film

**UVSCALE**

Utilized in Smartphones and Tablet Computers



\* 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.

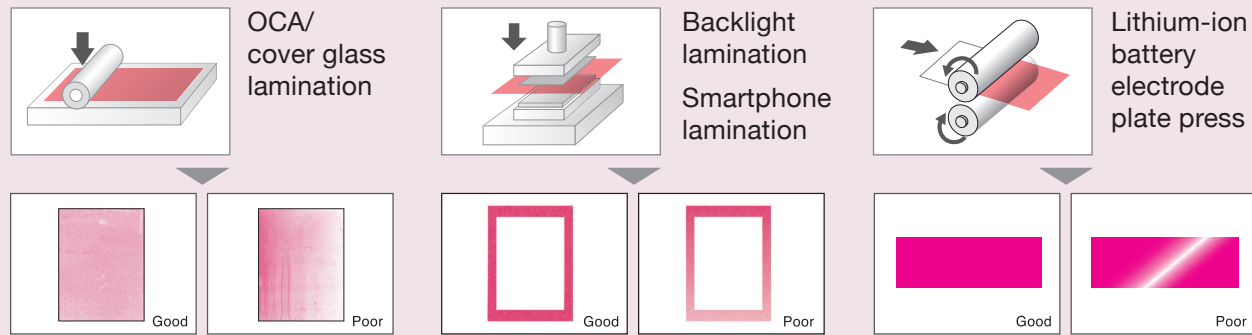
**FUJIFILM**  
FUJIFILM Corporation



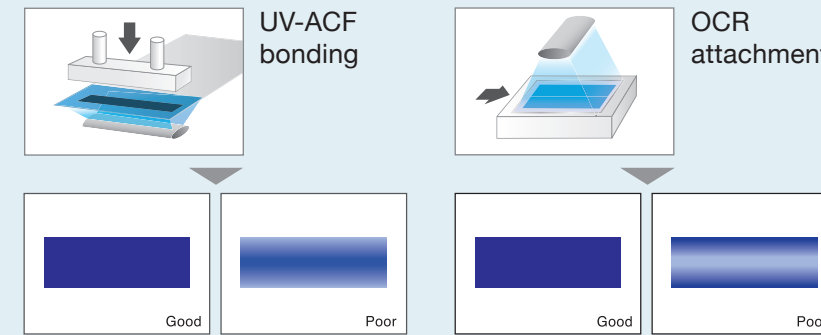
Distributed by: Spare s.a.s.  
Via Gen.le Enrico Maretti, 1/A-1 - 27057 Varzi - Pavia - Italy  
tel. +39-0383-54.51.51 - fax: +39-0383-54.50.51  
<https://www.spare.it> - <http://www.prescale-film.com>  
e-mail: sales@spare.it

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

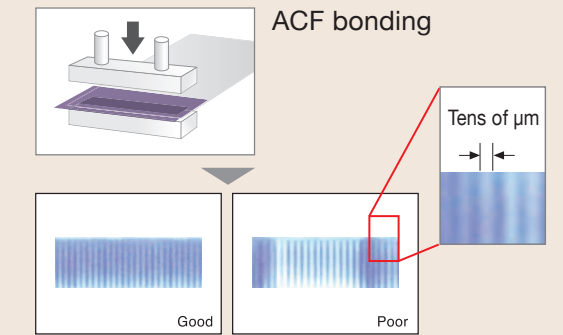
## PRESCALE measurement results



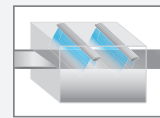
## UVSCALE measurement results



## THERMOSCALE measurement results



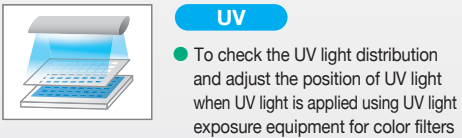
### Liquid crystal panel films and glass for liquid crystal panels process



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

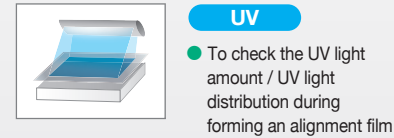
## LCD Process

### Color filter exposure



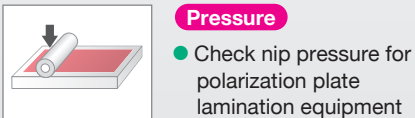
- UV
- To check the UV light distribution and adjust the position of UV light when UV light is applied using UV light exposure equipment for color filters

### Alignment film coating



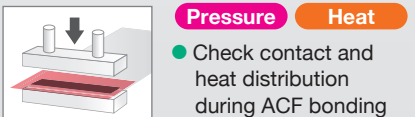
- UV
- To check the UV light amount / UV light distribution during forming an alignment film

### Polarization plate lamination

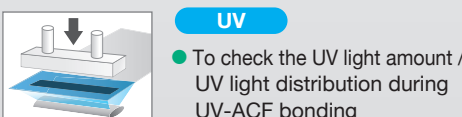


- Pressure
- Check nip pressure for polarization plate lamination equipment

### Driver IC ACF bonding

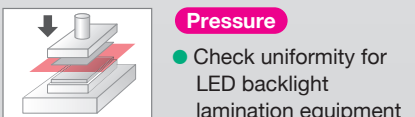


- Pressure Heat
- Check contact and heat distribution during ACF bonding



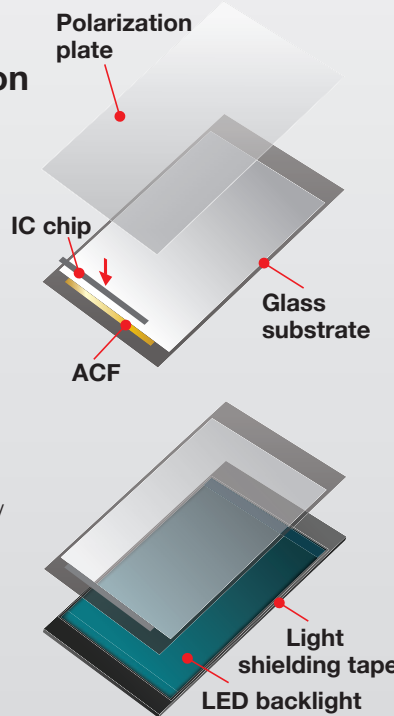
- UV
- To check the UV light amount / UV light distribution during UV-ACF bonding

### Backlight lamination



- Pressure
- Check uniformity for LED backlight lamination equipment

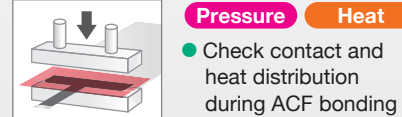
Small-and-medium LCD modules



## Smartphone Assembly Process

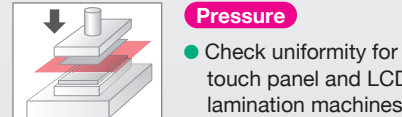
### Touch panel/LCD lamination

#### ACF bonding

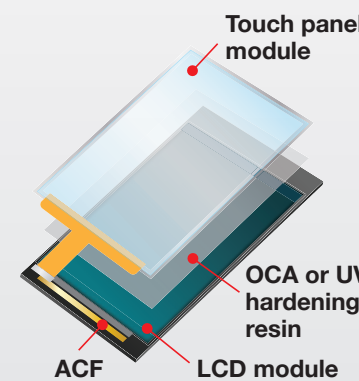


- Pressure Heat
- Check contact and heat distribution during ACF bonding

#### OCA Lamination

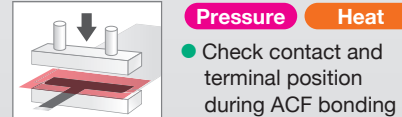


- Pressure
- Check uniformity for touch panel and LCD lamination machines



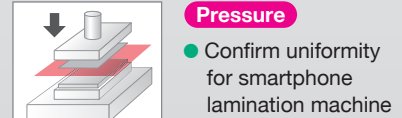
### Touch panel + LCD / smartphone lamination

#### ACF bonding



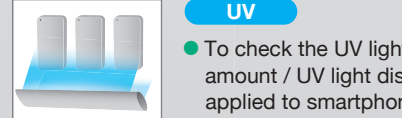
- Pressure Heat
- Check contact and terminal position during ACF bonding

#### OCA lamination

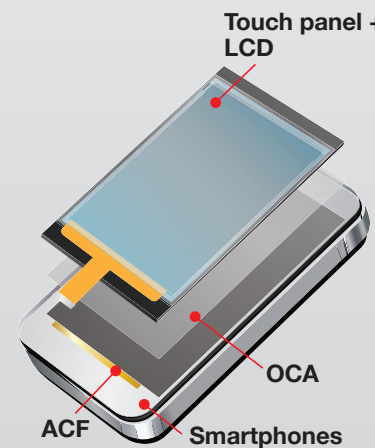


- Pressure
- Confirm uniformity for smartphone lamination machine

#### UV coating



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



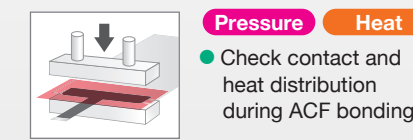
## Completed product



Smartphone  
Tablet PC

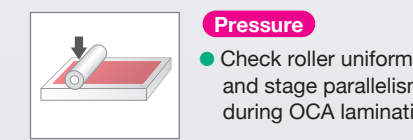
## Touch panel Process

### Controller IC ACF bonding

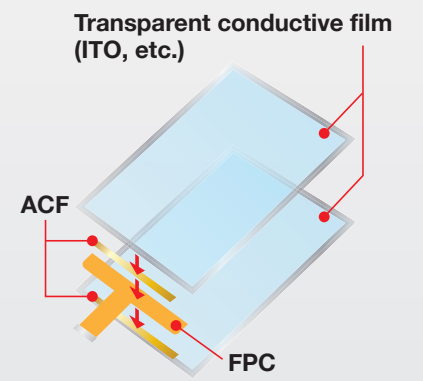


- Pressure Heat
- Check contact and heat distribution during ACF bonding

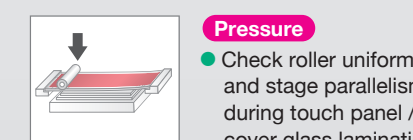
### Touch panel / OCA lamination



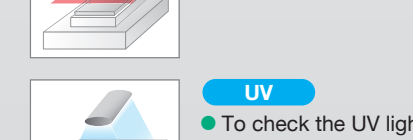
- Pressure
- Check roller uniformity and stage parallelism during OCA lamination



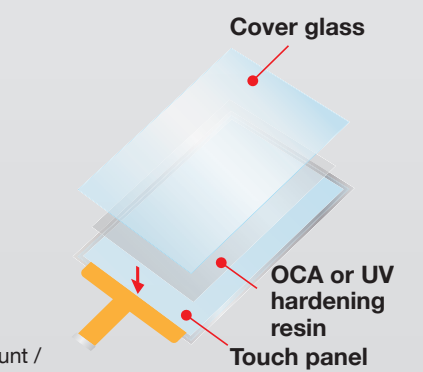
### Touch panel / cover glass lamination



- 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