FUJIFILM

PRESCALE

Pressure Measurement Film
PRESCALE Application Examples No.24

Use Inspection for damage or alignment of rollers used for pressing electrode plates

Measured objects

- **Rollers for pressing electrode plates of lithium-ion**

Examples of relevant products

Smartphones and EVs

Measurement

Pressure is applied to a Prescale film inserted between the rollers under normal conditions. The color developed in the film is then checked for consistent pressure distribution. This simple procedure verifies the quality or parallel alignment of the rollers.

◎ Press equipment

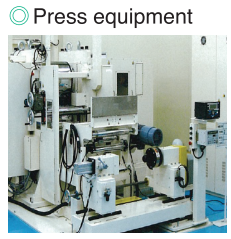


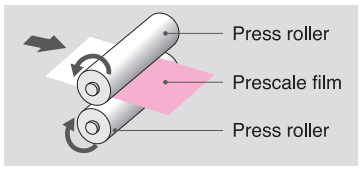
Photo provided by Toray Engineering Co., Ltd.

Manufacturing process

Mixing ▶ Coating ▶ **Pressing** ▶ Slitting ▶ Sheet cutting ▶ Stacking ▶ TAB welding ▶ Sealing ▶ Vacuum drying ▶ Liquid injection / top sealing ▶ Impregnation ▶ Initial charge ▶ Degassing / final sealing ▶ Charge / discharge ▶ Aging ▶ Inspection / sorting

Use example 1 Check for scratches, dents or deformation

Product used **Prescale (Low pressure LW or Super low pressure LLW)**



Results (images)

Acceptable

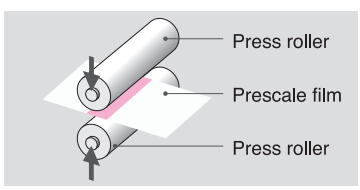
No marks

Defective

Mark of scratch or dent

Use example 2 Check for parallel alignment of rollers after gap adjustment.

Product used **Prescale (High pressure HS)**



Results (images)

Acceptable

Pressure is consistent.

Defective

Pressure is greater on the right side.

Benefits of Prescale

- Prescale makes it possible to identify damage on rollers including scratches, dents or deformation. Use of such damaged rollers result in uneven thickness of electrode plates, leading to non-uniform reaction of electrochemicals or other defects.
- Prescale enables roller parallelism adjustment. If the rollers are not parallel, the thickness of the electrode plate varies between the right and left. The plate of uneven thickness cannot be used for either cylindrical or flat batteries when the plate joints are misaligned.

➡ **Optimum tool to perform scheduled roller quality inspections.**

http://www.fujifilm.com/products/prescale/guide/index.html

Since the images provided are used for illustration purposes, they may differ slightly from actual products.

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

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