

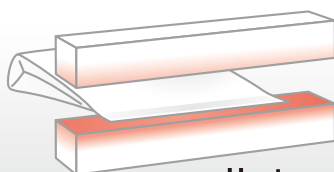
## Pressure Measurement Film

# PRESCALE

## Application Examples

[No.2]

### Measured Object



Heat sealing

### Uses

Equipment settings when changing products

Equipment maintenance

### Benefits

Time reduction

Fewer defects

### Industry

Packaging for food, pharmaceutical products and other applications

### Applications

Understanding and adjusting of optimal conditions for heat sealing

### Challenges

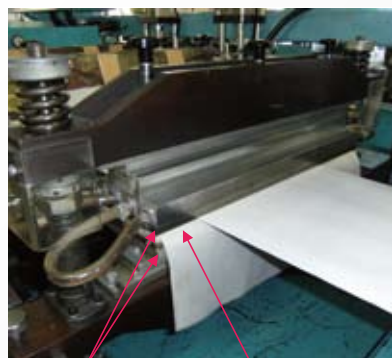
Poor seals include "imperfect seals that are not bonded" and "false seals that appear to be bonded." False seals are especially a problem because they cannot be identified visually, and inspection of all items is not possible. Currently, temperature, pressure, time and other parameters are adjusted. If the seal passes later evaluation using the peel strength test (JIS Z0238), it is accepted. Although instruments exist for measuring temperature and time, there is not yet an instrument for measuring pressure; therefore, trial-and-error is the only method.

### Measurement

### Used product: Prescale (Super Low Pressure LLW)

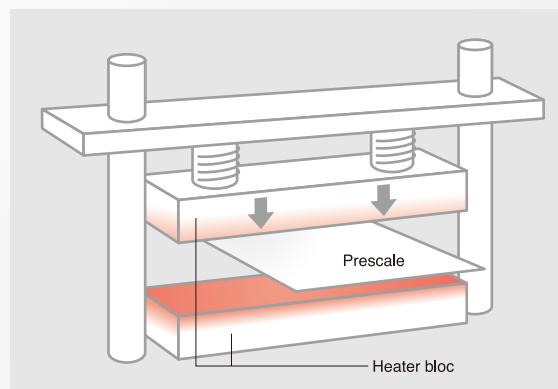
#### ● Pressing Prescale (Super Low Pressure LLW) between heater blocks

Pressure values and pressure distribution are measured with the actual pressure applied. Whether the heater blocks are horizontally parallel and pressure is optimally adjusted can be determined. Prescale can be used to obtain optimal conditions and to make rapid adjustment possible when changing the product type or during maintenance of the heat seal section.



Heater block

Prescale

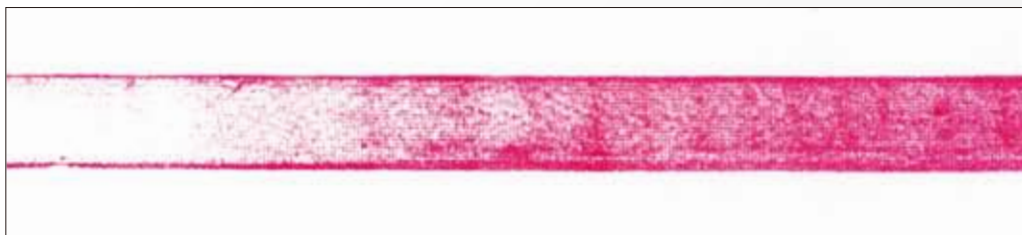


Heater bloc

## Results (images)

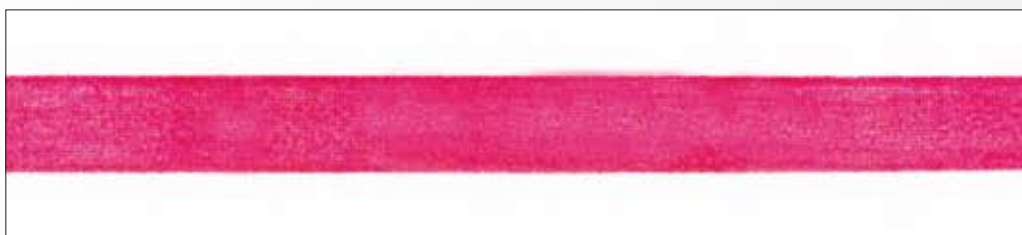
### ● Poor

The blocks are not parallel and pressure is unevenly applied.



### ● Good

The plates are horizontally parallel and pressure adjustment is optimal.



## Benefits of Prescale

### ● Time savings

Assuming one product change per unit per day, 30 minutes can be saved.

### ● Material savings

Minor (Losses for equipment setting tests, etc., can be reduced).

### ● Quality improvement

Equipment can be set without relying on the instincts of the workers.

#### Without using Prescale

Strength of adhesion is measured while changing the temperature, time and pressure parameters. Trial-and-error measurements are repeated until adequate adhesive strength is achieved. When the pressure remains uneven, heating (e.g., high temperature, long time) is used to force the sealing. → **false adhesion is likely to occur.**

#### Using Prescale

Prescale can be used to optimize the pressure level and pressure balance. Temperature and time can be optimized as parameters. Adhesive strength evaluation (JIS Z0238) is used for final confirmation.

\*Note that the specifications and performance data described in this catalog are subject to change without notice, for the purpose of improvement. Since images are used for illustration purposes they may differ slightly from the actual product.

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