

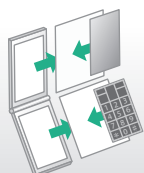
Pressure Measurement Film

PRESCALE

Application Examples

[No.19]

Measured Object



Assembly of mobile phones

Uses

Checking the water resistance of mobile phones and improving the stability of related production processes

Benefits

Higher yield

Higher quality

Defect analysis

Industry

Manufacture of mobile phones, smart phones, and tablet computers

Applications

Checking uniformity of assembly jig pressure

Challenges

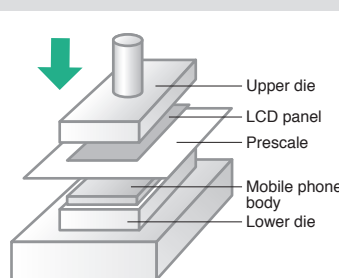
As mobile phones become increasingly compact and thin, the demand for waterproof phones is growing. However, the assembly of waterproof mobile phones requires stricter tolerances than those of non-waterproof devices. Also, waterproof construction requires additional parts, so the assembly of waterproof devices involves more processes, which increases the probability of waterproofing malfunction due to assembly defects. Therefore, ensuring that uniform pressure is applied by the assembly jigs during the assembly of waterproof devices is an important issue.

Measurement

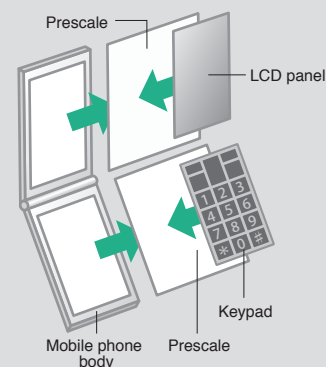
Product used: Prescale (Ultra super low pressure LLLW, Super low pressure LLW, Low pressure LW)

Waterproof mobile phone

Generally, a waterproof mobile phone has several tens of watertight parts in total, including the LCD panel and the keypad. Prescale is used to assure the assembly jig used for assembling the phone exerts a balanced pressure.



Example of LCD panel mounting

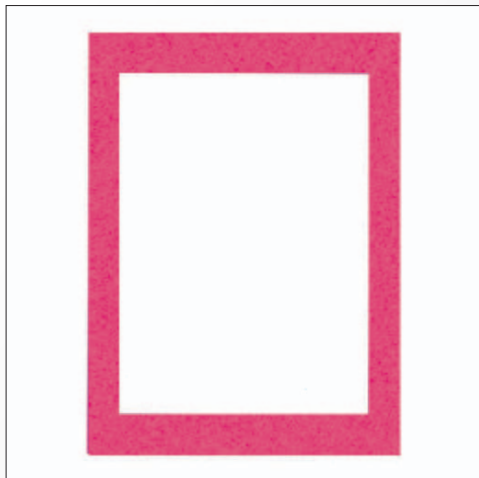


- 1) The parts of the mobile phone to be assembled are loaded onto the assembly jig.
- 2) A sheet of Prescale, cut to the appropriate size, is inserted.
- 3) Pressure is applied by the assembly jig.
- 4) The Prescale is removed, and the color density indicates the evenness of the mounting position and the overall pressure balance.
- 5) If the pressure balance is poor, the jig pressure balance is adjusted, and another check is performed using Prescale.
- 6) When the density of the developed color is even, full-scale production can begin.

Results (images)

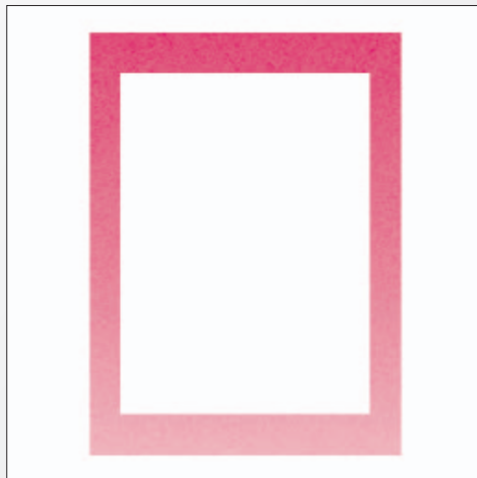
[Good]

Pressure is evenly applied



[Not Good]

Pressure is unevenly applied



Benefits of Prescale

- Higher yield, higher product quality, and higher precision
- Lower variance between individual products
- Less time needed to analyze defects

Without using Prescale

Since the evenness of the mounting position and the pressure balance of the jig are not checked before commencing assembly, **the finished product after assembly may not be sufficiently watertight.**

With Prescale

Since the evenness of the mounting position and the pressure balance of the jig are checked before commencing assembly, **the finished product after assembly will definitely be watertight.**

*Note that the specifications and performance data described in this catalog are subject to change without notice for the purpose of improvement. 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/>