Solar cells (Photovoltaic Module Manufacturing)

Checking that press pressure of vacuum laminator is even

In the manufacture of solar cells, modules are formed by cementing the cells to the glass substrate with a vacuum laminator. If the press pressure is not even when this is done, defects will occur, such as damage to cells or wrinkles in the protective film. Although it has been possible to measure vacuum pressure, until now there has not been a way to directly measure the pressure actually applied to the cell.

Product used: Prescale (Extremely low pressure 4LW)

Place Prescale (4LW) over the glass substrate and apply pressure under normal conditions. Check whether the pressure was applied uniformly by examining the resulting color of the Prescale (in the case of the thin film type). In addition, perform checks both with and without cells to assess the influence of cells on the pressure distribution.
Benefits of Prescale

Previously, abnormalities could only be discovered at the stage of product inspection, after vacuum lamination.

**Time savings**
Without Prescale, much time is wasted in making adjustments when abnormalities occur.

**Material savings**
Without Prescale, large amounts of materials are wasted when abnormalities are found in final inspections.

**Without using Prescale**
Defective products reduce yields only at the product inspection, so large amounts of materials are wasted.

**Using Prescale**
Since abnormalities can be prevented by regular process inspections, production runs under optimal conditions, thereby improving plant utilization.

*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.*