



19 LID SCOPE SOLUTION FROM LAYTEC

Germany's LayTec is introducing a new tool for the analysis of the Light Induced Degradation (LID) in solar cells. With the challenges of LID in PERC cells becoming better understood, the ability to test cells for LID, tweak processes, and provide customers with accurate LID measurements, are becoming increasingly important in today's production. LayTec's LID Scope allows prediction of the LID stability of PV modules already at cell level. The developer says the table-top, easy to handle LID Scope is able to analyze

all kinds of PV cells and perform all kinds of test scenarios. Using controlled heating and electrical current instead of light for carrier injection LID Scope can achieve an automated and repeatable degradation of the cell and predict the efficiency loss in the field.

LayTec's LID Scope can perform a quick 15-minute test at high temperatures with model-based extrapolation to real life behavior. The system can also perform testing that simulates real life conditions.

Analysis of the LID effect at single cell level enables tight quality control and makes it possible for operators to degrade a poor quality cell before assembling into a module.

with high throughput of up to 6,000 wafers per hour. The machine has short process time, with standard alkaline texturing time below 12 minutes. The tool uses monoTEX, RENA's next generation texturing additive. The cleaning process includes pre-cleaning, monoTEX process and metal cleaning.

The company says that with its BatchTex cleaning technology customers can run texture processes with well-defined pyramid sizes (1 to 3 μm or 2 to 5 μm) and highest uniformities. And by combining this tool with the InOxSide+ wet chemical tool, manufac-

German-based RENA says that the combination of its BatchTex N cell cleaning technology with texture additive monoTEX and InOxSide+ wet chemical tool allows customers to create well-adapted wafer front-and back side topologies, according to the cell concept requirements.

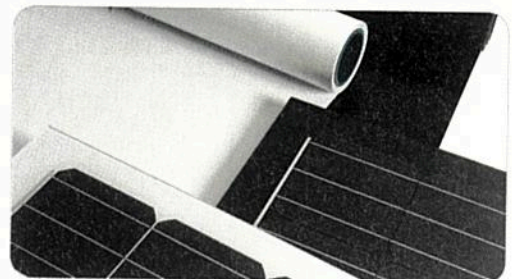
RENA's BatchTex tools are said to interconnect ultra-compact tool design

20 COVEME'S NEW 1500VDC BACKSHEETS

Italy-based Coveme introduces its third generation of backsheets for high voltage insulation. New variations of Coveme's backsheets for 1,500V high system voltage modules, dyMat H2DPYE and dyMat MHPYE L, are in compliance with PDT 1500 VDC in AIR.

A new product range, for 1000VDC and 1500VDC, is compliant with the new regulations under discussion by IEC: both products are available with different customized reflectivity and in a low shrinkage version.

The company reports that it is currently developing a number of innovative products, such as superblack backsheets, which help to reduce the energy loss in the module by more than 50%, compared to the standard black backsheet. Another expected innovation is a transparent backsheet technology for BIPV and for PV bifacial cells, including a special hybrid solution for bifacial modules that is said to increase the output of the panel. This product can be also applied to glass-glass modules, the company says.



turers can achieve very homogeneous backside smoothing.

InOxSide+ offers a single side etch process, hardware adaptations and improved process control, and can moderate etch depths of $\leq 4 \mu\text{m}$.