

## Meyer Burger integrates LayTec's X Link into laminators



LayTec and Meyer Burger have jointly developed the world's first fully integrated metrology solution for EVA\* cross-linking control in PV module production lines. Meyer Burger ([www.meyerburger.com](http://www.meyerburger.com)), a global technology group specializing in systems, product equipment and services along the PV value chain, will now directly integrate LayTec's

X Link in the cooling press of laminators. X Link allows for closed loop process control and 100% quality assurance of EVA lamination and fully replaces slow, error-prone and costly off-line analysis methods. For further information please visit [www.laytec.de/xlink](http://www.laytec.de/xlink).

\*EVA= ethylene vinyl acetate



## LayTec wins Intersolar AWARD 2013

This year's Intersolar AWARD in the category "PV Production Technologies" goes to LayTec's X Link. The metrology system was honored for its degree of technological innovation, environmental and economic

benefits. X Link is the only non-destructive system available today for the inspection of encapsulant cross-linking. The tool can be integrated into every solar module production line and allows for long-term process stability, high yields and low production costs.

## Polyolefins - the new encapsulant for solar modules now taken under control

Polyolefins are known for their inherent stability, superior moisture resistance, and significant electrical properties. These qualities make the polymer the material of choice for solar module encapsulation and a strong competitor of EVA. While EVA is an established encapsulant well integrated into lamination processes, for the newcomer polyolefin, PV manufacturers still lack quality criteria that allow proper process control and quality assurance.

Recent tests performed with a major industrial customer demonstrated that LayTec's X Link metrology system (Fig. 1) can be applied for evaluation of the cross-linking degree of polyolefins, too. Fig. 2 shows metrology data obtained from 4 solar modules that had been laminated for the period of 18, 21, 24 and 27 minutes (plotted on the x-axis). X Link measured the mechanical properties of the polyolefin and derived values of the „LayTec cross-linking metric“ (LXM) that are plotted on the y-axis. The LXM clearly correlates with the lamination duration, thus proving to be a suitable measure for gauging lamination quality of solar modules with polyolefin encapsulation.

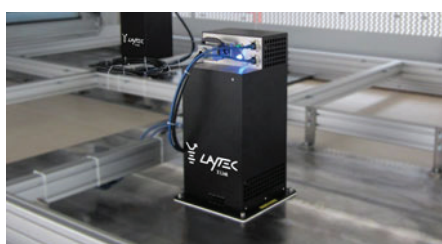


Fig. 1: In-line version of X Link: the measurement heads can be integrated into the cooling press of the laminator or further down the production line.

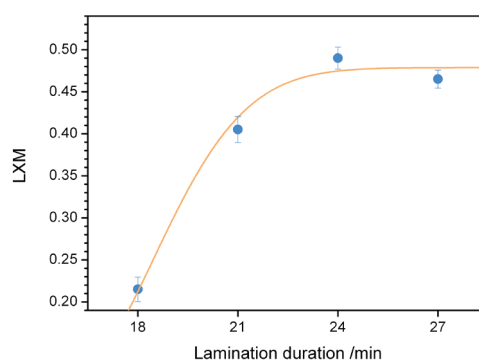


Fig. 2: LXM values determined by X Link for 4 different modules that were laminated for varying durations.

From the data in Fig. 2, the customer concluded that the bulk of cross-linking is completed after 21 min. and that the lamination process is running within the specification as long as LXM values are higher than 0.4.

Employing X Link for process control and quality inspection has proved to be just as easy for polyolefins as for the well established EVA. Further investigations are being conducted to further verify the current data interpretation and to adapt X Link to other new encapsulation materials.

You can meet us at the following workshops, conferences and trade fairs:

30 September – 3 October 2013 | EU PVSEC 2013 - Poster session on 2 October | Paris, France | [www.photovoltaic-conference.com](http://www.photovoltaic-conference.com)

12 – 15 November 2013 | Intersolar India - Booth 1618 of our distribution partner Bergen | Mumbai, India | [www.intersolar.in](http://www.intersolar.in)