



Deliverable Report

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Executive Summary

This report describes the feasibility demonstration of COSMOS PV laminates production with prototype gluing and assembly equipment designed by RIMAS.

TULiPPS has set up a competence centre for gluing- & laminate assembly and demonstrate the WP3 gluing- and assembly prototype equipment developed by Rimas. At the competence centre the manufacturing process of the COSMOS PV modules has been and will be further developed and demonstrated. Once the first laminate prototypes were available from third party PV module / laminate manufacturers (please see: task 4.5) they have been tested for qualification at KIWA.

This report evaluates the feasibility of the production of the Cosmos PV laminates. The experience gained during first production has been used to improve the automated gluing and assembling.

During the first production one aspect came up that we failed to specify for the machine design: the delivered laminates seemed to be more curved than expected. These caused serious attention and required extra measurements to reach feasibility.

As a result of the work executed in WP 3.4 it is concluded that an automated gluing and assembly process is feasible for production of laminates within the aimed accuracy and production speed. The risks and quality issues are well under control despite the short term (medium risk) issue of curved laminates. For current demonstration modules the issue has been solved by utilizing tools. For future production the PV laminate producer will have to optimize lamination conditions to minimize curving of laminates.

Once the production equipment has been proved is it used for successful production of the first serie products as described in deliverable D4.5 for the demonstration projects of WP5. In the meantime, PV modules for the demonstration projects have been produced and installed and the gluing and assembly is operating successfully.

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http://cordis.europa.eu/fp7/cooperation/home_en.html

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UNR | Uniresearch B.V. (NL)
YPR | Yparex B.V. (NL)
RTG | Rimas B.V. (NL)
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