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PETER RÖTHLISBERGER FROM SOLAXESS: „WE CAN OFFER ANY COLOUR“

The Swiss manufacturer Solaxess produces special films for white solar modules. In the meantime there is a technological evolution. Sales Manager Peter Röthlisberger explains the advantages it has.

The special film from Solaxess has not even been on the market for that long. Now there is a further development. What problems does it solve?

Peter Röthlisberger: We have developed a nice solution for architects. But it is also quite price-intensive. The module manufacturer had to apply our film in a composite of four layers. This consists of the solar film, two encapsulation films and an ETFE film as the top layer. This makes production very demanding. In addition, a distance of five millimeters from the module edge is necessary. Up to now, this free area has had to be printed in the case of a frameless module.

Why do you need this space?

The first version of the Solaxessfilm could not reach the edge of the module because we did not want direct contact with the environment. This will change with the new version. Then the module producer can cover the entire panel with the film. The application is also much easier because only two layers will be applied in the future.

The version then consists of less than four layers?

Exactly. Together with the CSEM researchers, we have developed a new version that only consists of two layers, the actual Solaxess foil and an ETFE layer. The manufacturer no longer needs to apply the new foil to the top side of the module, but can also laminate it under glass. This eliminates the two encapsulation foils.

What does this solution look like in concrete terms?

In the first step, this will be an additional glass that the manufacturer applies to the actual module. But in the future he will also be able to integrate our film directly into the module. Then the ETFE can also be eliminated. This will make production easier and cheaper. So with our solution, there will be different module surfaces – depending on the needs and wishes of the customer: glass or ETFE.

When will the new version be available?

The production equipment has now arrived and we expect to start producing the first square metres in spring, between March and May. We will then start certification and will offer the further developed product on the market later this year. It will be possible to integrate the film during the summer months.

Will the current version with the four layers still be available?

At the moment, it will still be available. Customers will then be able to choose between a module surface made of matt and easy-to-clean ETFE or the smoother glass version. As soon as we have obtained the certifications for the second variant, it is quite possible that we will stop the production of the first variant. This is because it is optically softer due to the ETFE foil in comparison to glass. But it is more complicated to handle and therefore more expensive.

By how much will the price of a white module drop?

The price of our solution is reduced by about two thirds with the new variant. This brings us to the same range as the printed modules. This is because a full-surface print costs between 30 and 60 Euros per square meter, depending on which colour is used and the thickness of the print. Since our approach is that solar technology is no longer visible, a very thick print would be necessary. With our new variant we are below that in terms of price. In addition, the modules printed so densely lose 70 or sometimes even 90 percent of their power. With our film, the power loss for white modules is between 40 and 45 percent. With grey and darker colours, even more power remains. For terracotta-coloured modules, the loss is a manageable 20 to 30 percent.

But with printing you are more flexible when it comes to colour?

We will not only offer film for white modules, but in future we will also produce darker colours. We will be able to reproduce practically any desired colour. Initially, in addition to white there will also be shades of gray and brick-coloured films – in each case without the solar cells being visible. For individual markets, other colours are also conceivable. But it is also possible that we will produce certain colours exclusively for customers. If, for example, the German Post wants to have modules in its yellow, it would be very easy to talk to us.

The interview was led by Sven Ullrich.

You can read the complete interview in issue 01/2020 of the trade journal [photovoltaik](#).

Recently, Solaxess has equipped further façades in Uppsala, Sweden, with white solar modules. Club members of [Solar Age](#) can find a complete report in the [project database of the architecture portal](#).

Solaxess