

TechnologieForumZukunft "Modern Welding Processes" | 30 September 2021: Chat questions and answers

Is it possible to estimate how high the share of seamless welding is now in the industry in Germany?

Michael Walther (Urban; machine manufacturer in the RAL Gütegemeinschaft):

That is difficult to estimate. But it is becoming apparent that the proportion is increasing and that several major window manufacturers have now decided in favour of the new technology – and the trend is rising.

What about the long or short term test for an acrylic coextrusion?

Martin Willing (Ventana Deutschland; window manufacturer):

We have already done regular short term tests. And the results are all above the target range at the moment. Long-term tests are not yet available. That would be a topic for the RAL Quality Association.

Ralf Grewenig (profine; system supplier in the RAL Gütegemeinschaft):

We are just at the beginning of this new dynamic investigation. So far, no Wöhler curves are available for profiles with acrylic coatings.

Is there a future for infrared welding processes in window construction?

Walther:

In the past, there have already been first trials that were scientifically accompanied. Because the machine manufacturers together had given a work order to the SKZ, which had investigated infrared welding. Corresponding results are also available. However, these are very extensive and, above all, need to be properly evaluated. Therefore, the machine manufacturers and the SKZ are happy to provide information.

Grewenig:

According to current knowledge, however, IR welding is still far from being used in series production in the window industry.

How are the issues of mullions, transom installation and drainage to the front realized in combined welding with aluminum cover plates?

Willing:

We have no problems with drainage. We manufacture lift-and-slide doors with aluminum covers and they are all drained downwards. The issue of mullions is also not a problem, as these are installed subsequently.

How much time is added to the welding process with seamless welding and can this time be made up?

Walther:

The process can be designed differently. It depends on which profile system and which profile geometry are being processed. But indeed, the issue of time is of course a mandate for us machine manufacturers, which we have taken on board and try to implement the cycle time accordingly, as is the case with conventional welding.

Due to the German and European window systems, there is sometimes no way around downstream machines. Here, for example, the corner- / shear-bearing, which has to be prepared on the downstream machine. Therefore, you always have to deal with a machine-product mix that you have to address individually for each customer.

Nevertheless, I think it will be possible to make up the time. However, you have to take into account how well an employee can handle the machine. In the production process, it is a mix of machine, profile and people and the influences on site that have to interact. So you have to look at the individual operation to optimize the process in a targeted way.

1. What about the new welding process with foamed profiles and 2. what about the investment costs: conventional welding process versus new?

Walther:

As a machine manufacturer, we have dealt with the subject of foamed profiles in dialogue with system providers who were planning to launch these profiles on the market. So this is nothing new for us. We were confronted with it at the time and subjected these profiles to the modern welding process in order to test how the profile and the geometry behave within the process. This means that we can also process and weld these profiles.

Regarding question 2, I would like to say that the customer should be aware that they tend to have to pay a little more for good quality. But this pays off in the end.

If you have any further questions, please contact us: info@gkfp.de

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