SUCCESS STORY

Measure Before You Calculate

A Success Story of the Alexander Dupp & Colleagues Engineering Consultancy Firm

From many discussions concerning Uglass, the mobile Ug value measurement device, we can see that a certain „fear" exists – or at least, considerable reservations. We do not understand why this technology is not already being employed all over.

The Alexander Dupp & Colleagues engineering consultancy firm is the first office to have people who are outside of actual involvement in development making use of this new technology. So far, we have measured approximately 40 different ISO panes by Uglass, simply in order to be absolutely sure that the values measred truly reflect the facts.

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Our results show that 95% of all German insulating glass manufacturers do meet their declared values for new production, and thus really do supply a very good quality product.

We found that insulating glasses exhibiting problems and significant deviations stem mostly from the eastern European countries. In many cases, glasses from the Southern european countries do not perform as well as they should either (declared at 0.5 W/(m^{2}K), but measured at over 1.0 W/(m^{2}K)).

Alexander Dupp, öbv
Engineering Consultant

In this respect, German manufacturers of insulating glass can sit back and relax and, if need be, substantiate the quality of their output via routine measurements in production – just as the company Energy Glas already does today.

Those who should be concerned are, in praticular, processors who count on "cheap" glass – and import this along with windows to install at customers' sites.

In the event of a claim, it's the window installers who bear the brunt, since they are legally required to submit documentation about their product's performance within the scope of the CE labelling obligation, along with a declaration of capabilities and a special statement regarding company specialization in accordance with ENEV. This is to confirm that the products executed have the specific performance characteristics and general capabilities that were explicitly demanded. And all of a sudden – oh dear – panes steam up and condensation appears on the pane and frame. Assertions such as: "It's actually colder in the house than before!" are then made by the customer.

The usual disputes ensue and matters arrive in court. And now?

Photo: Daniel Mund / GLASWELT

The U value of the frame is alright, but the U value of the glazing is not – and in fact, deviates significantly from the value specified in the contract. Consequent problems such as increased energy consumption, damage due to large amounts of condensation, etc., are, of course, legally analyzed and discussed. In our opinion, however, such discussions are often quite excessive.

If a processor buys such a product and installs it at the customer's site without having checked it, that processor is liable. Today, state-of-the-art technology allows for incoming goods inspection by means of the Uglass mobile Ug value measurement device.

What's more, it may be that the window producer was supplied with an exchanged product – but now will still have to bear all the costs directly.

The idea should not be to approach this new technology – which can be used by all parties – in any negative way, but rather as a positive quality feature for one's own quality assurance. We prefer that the technology be used rather as a preventive measure than for disputes – since by then it is too late.

We are currently employing Uglass at some window producers in quality assurance and also in the event of disputes. It is even used and accepted in legal proceedings without any problems. A particularly interesting application of the device is for the refurbishment of larger buildings with a large amount of glass.

We employ it in such cases to determine the actual thermal insulation value. The results are then used in new heating requirement calculations.

Here, it has often been the case that by employing Uglass, larger amounts of money could be saved on a new heating system.

But now it is time that the responsible people in the standardization field address this issue and take appropriate and timely action. The act of "measuring before you calculate" always provides reliable proof – even in court. Anyone in the field should be well aware that technology is very often indisputably faster and more progressive than standards.

Further information on the Alexander Dupp & Colleagues engineering consultancy firm can be found on http://www.sachverstaendiger-tischler.de/.