

40 YEARS OF PROVEN QUALITY, QUALITY STATEMENTS, ATTESTATIONS AND CERTIFICATES.

Many materials and products are supplied with a variety of quality statements, attestations or certificates. An example of this is the KOMO product-certificate.

A lot of confusion has arisen in recent decades with regard to the KOMO Product-certificate for bonding facade panels based on BRL 4101-7. The present BRL 4101-7 is very outdated, there is no connection with the Building Regulations and the current KOMO Product Certificates are not under public law but under private law, in other words have no legal recognition or permission: *"Just to mark your own paper"*.

HISTORY

In 2003 BRL 4101-7 "adhesives for fastening facade cladding" was issued, in which the procedure for the necessary examinations for attestation and certification is laid down in order to obtain a KOMO® Attest-with-product-certificate for the mounting of facade cladding with adhesive. At the time, the aim was to be able to demonstrate that the 50-year sustainability requirement of the (then applicable) Dutch Building Regulations was met. On April 28, 2010 the SBK Construction Quality Foundation withdrew BRL 4101-7. The basis for the product certificates thus lapsed and it could no longer be demonstrated that the requirement in the (then) Dutch Building Regulations with regard to 50-year durability was met. Reasonable doubts had arisen about the validity of the performance requirements stated in BRL 4101-7. This was endorsed by, among others, the government, the Building Quality Foundation, the Building Decree Assessment Committee, TNO/HI, certification bodies, constructors and engineers, etc.

The withdrawal was motivated by a number of incidents from which it appeared that the KOMO® Attest-with-product-certificate was not always a guarantee for the lifespan and/or quality of the bonded construction. Panels partially or even completely detached from the rear construction, with all the associated risks.

On 28 June 2011, the Assessment Guideline BRL 4101-7 with a new amendment sheet was accepted by the Harmonization Commission for Construction. This enabled the KOMO® certificate to be applied again at product level.

However, in all sections of Chapter 3, in which a relationship to the (then) Dutch Building Regulations is indicated, this relationship has been canceled. Especially since the described studies, despite positive results, could not demonstrate durability during the reference period. So no longer had technical value.

The KOMO quality certificate, based on the present BRL 4101-7, subsequently turned out to be in violation of the European Construction Products Regulation (CPR), as a result of which the Dutch government, after repeated requests, finally intervened in December 2014 and, as of 1 January 2015, invalidated the statutory connection of the present quality declarations. The contemporary KOMO certificates for bonded facade cladding are therefore certificates without legal recognition or permission and with the positions as stated in BRL 4101-7 drafted in the nineties strongly outdated.

WHAT NOW?

This state of affairs with regard to BRL 4101-7 and the KOMO quality certificates meant that we had to consider our position on how to deal with this: The KOMO Certificate, previously under public law with a relationship to the (then) Dutch Building Regulations and now only under a private law document: *'Just to mark your own paper'* based on outdated and obsolete performance requirements and testing methodologies:

1. Despite the fact that passages on adhesive properties are included in this type of product certificates, such a certificate cannot simply be used as proof to demonstrate that the prescribed requirement of durable adhesion is met on a panel material.
2. In practice, product certificates are found in which the technical information about the adhesion qualifications of the product does not match the applicable specific requirements and/or outdated, or even no, test results are known.
3. It is not just possible to use a product certificate for all possible applications with materials assumed to be similar to the tested materials ...
Different durability tests have to be carried out for different materials, which also have to correspond to the current level of knowledge and that does not correspond with the way of approach by the BRL 4101-7 on which the KOMO certificate is still based.
4. A quality mark without legal recognition has no distinctive value whereby a comparison can be made quickly with the KOMO Certificate on garbage bags: provided with a logo but without clear quality wording.

In short, this certification process is too far from what we had in mind and that is why we have decided not to continue with KOMO.

Moreover, almost every country still uses its own inspection and quality systems. Being active in several countries therefore means multiple certificates for often the same issue. Our international character and the development of European standards in recent years prompted TWEHA to no longer use quality marks at a national level. If the available previously performed tests provide no or insufficient information, we limit ourselves, together with our clients, in the various countries to the project-based performance of any required tests.

HOW IS THIS TO GO ON?

We have of course also established that a half-hearted situation has now arisen in which colleagues, under the assumption that they still have a handy trade barrier in their hands, continue to embrace the non-existent value of the KOMO characteristic, put aside progressive insights and more or less mislead the market. This more or less indicates how some colleagues stand in the quality measures to ensure...

In general an average quality test does not always indicate a safe product. And a product with a quality level as referred to in a KOMO product certificate is certainly not a safe

product if the present quality technology and process validation do not correspond to the current state of the affairs.

We have therefore entered into consultations with leading research authorities and have investigated the long-term behavior of adhesive joints in order to determine approximation and calculation methodology and safety margins so that a connection with applicable sustainability requirements can be made plausible.

Our adhesive systems are now subject to an intensive internal test program. With conditions with a higher severity than in normal use, in which the durable adhesion to any type of facade panel material (and natural stone in particular by means of a random sampling of each 'badge or layer' of the material to be used), differentiation opportunities and reliability are recorded.

In accordance of an accelerated aging test, the long-term behavior of the present adhesive bond is assessed in the light of the reliability philosophy as prescribed for structural safety, so that a characteristic value can be determined.

Based on the relationship between the mechanism of degradation and the accelerated aging test, then it can be determined whether the considered degradation continues to meet the stated requirement: no adhesive fracture and a cohesive fracture >1 Mpa. The production and production-inspections, periodic product inspections and the tests by external laboratories, supplemented by our quality procedures tested against almost 40 years of practical experience, we have more than guaranteed the quality and application of our products.

A KOMO product-certificate does not add anything to this for us. in the beginning, of course, we had to explain this to the market, but in recent years without KOMO we have not experienced any inconvenience as regards sales.

Ultimately, it is about managing the risks that threaten the achievement of the critical quality characteristics. No type of façade panel is the same, just as no brand of facade panel is the same, or type of supporting construction is the same. So are the differences between the conditions, both during application and during the service life.

Different in the assessment of the minimum quality level. And that is where the BRL 4101-7 and the KOMO product-certification based on it fall short in our opinion.

The quality and safety policy at TWEHA has been scaled up and the long-standing acceptance of our adhesive systems in more than 40 countries proves a problem-free guarantee for the successful use of our adhesive systems.