Guide to a certificate for reinforced steel according DIN (DIN 488-1,-DIN 488-2 and DIN 488-6) for Germany and according BRL 0501 with NEN 6008 and EN 10080 for the Dutch KOMO certificate.

What are the steps? The certification process for the Dutch KOMO and German Ü-Zeichen are two separate processes and owned by Kiwa GmbH and Kiwa Nederland b.v. Therefore you´ll receive agreements, specific information such as the regulation and general terms for each certification scheme. This is mandatory to us as an accredited certification body. Beside this Kiwa Germany will combine as much as possible to serve the customer and minimize costs and audits. Therefore we are working together closely.

1.) **The producer has to apply for a certification**. He has to fill in 2 application forms, One for the German and one for the Dutch certification scheme; This is mandatory that Kiwa, as an accredited company, has to check if we can deliver the service which is requested.

2.) **We need to know**:

The data of the producer
The exact production place(es)?
Is the steel produced in one or more mills.
The way of production (hot rolled water cooled, hot rolled micro alloyd,……)
The diameter range (for example from 8mm up to -32mm)
Kind of product: bars and/or coils
The ductility class B 500B? (B500C could be possible for the Dutch KOMO certificate, but according DIN488 it would be a special approval (bauaufsichtliche Zulassung")
Both ductility classes would be tested.

3.) **Kiwa will write a certification agreement** (quotation) which has to be signed by the certificate holder (normally the one who pays the invoices) and the producer of the reinforced steel. In case that the importer will pay the invoices,=> it could be possible that the importer will be mentioned as the owner of the certificate and the company (producer) will be named under "Producer" in the certificate. In this case we need an acceptance of the producer that the importer will take care of the certification activities.

What we need to know: The complete data of the producer, this will be defined in the certification agreement; the specific diameters which have to be certified.

4.) **Before the certification** of the reinforced steel could start, the producer has to contact the German DIBt to apply for a unique specific identification mark which is rolled on the surface (ribs) of the reinforced steel. This mark shall be on the surface of the reinforced steel when the company is delivering the steel to Germany or the Netherlands. The rolling mark granted by the DIBt, will be accepted for the Dutch certification. The kind of the rolling mark is described in the EN 10080. It will be a code number "9" plus a company code.
In case the producer wants to roll a company sign on the surface of the bars: watch out, in this case we can´t certify for Germany according DIN 488, but in accordance with a "Bauaufsichtliche Zulassung". This would have an impact on the costs which would rise.

5.) After receiving the unique rolling mark from the DIBt, the producer can start rolling the steel with that mark. This steel has to be tested in the lab of the producer. These internal test results have to be sent to Kiwa before visiting the company. The number of examples is documented in the appendix).
We recommend and would suggest the following:

The mill should produce a first diameter. Maybe d= 20mm. Therefore it won´t be necessary to produce a huge quantity. They should test that diameter and check it according the German and Dutch regulations. A quantity of 20 tons would be sufficient. This will be the base of our discussion.
Parallel, 5 samples of that diameter should be sent directly to our lab in Berlin. We will test them and handle them with our highest priority. We can perform the tensile test, rib geometry, fatigue testing and judge them acc. the Dutch and German requirements. From this point on we will have a basis for a discussion and can give our remarks

This is helpful because we could prevent rising costs if the requirements wouldn´t be met)

6.) Certification process on site: initial investigation

During a certification process we have to visit each rolling mill for the initial investigation.

The initial investigation includes the judgement and implement of the documented quality-system,
Judgment of the implementation of the quality-system by 1 visit to the production site for Germany and 2 visits for the Netherlands. The first visit will be combined D+NL (2 persons) and the second visit will be performed only for the Dutch certificate (1 person).The audit will take two days/mill, if possible. During this visits samples of the reinforced steel bars/coils are taken from stock, or out of the production for testing in the laboratory of the mill. . During the visit a second set of the samples will be taken for testing/verification in our laboratory in Berlin (mechanical properties, rib geometry, chemical analysis, bending, re-bending; fatigue testing).

Comparison of received test results of our lab in Berlin compared with internal test results of the mill.

If everything is according the requirements, Kiwa will make a report of the judgments of the test results to the standard and from the audit on your plant.
Final: Granting of the Certificate (German Ü-Zeichen).
Final: Granting of the Certificate (Dutch KOMO certificate).

7.) Periodic surveillance per year:

The frequency of visits after the issuance of the certificate is set to 3 visits per calendar year.
During these visits, Kiwa will check the implementation of the quality as mentioned in your internal quality control-schedule, verify your internal test results to the standard and take samples of reinforced steel bars for testing in your laboratory.
During the year, Kiwa will take samples for testing in our laboratory.

8.) **Estimated time for the initial investigation and granting the certificate for one mill**:

Based on our experience we are calculating 6 month, but it also can take 1 year or even longer if there are nonconform results of testing and additional visits and taking samples again could be necessary. In that case, the customer has to roll additional different sizes and it depends on the customer how soon we could travel to China.

If there are no major/minor non conformities raised during the initial inspection and samples were taken, it will take 2-4 month after receiving the samples in Berlin for testing (if the results are OK)

If a second or third mill should be certified, it would have an influence on our testing capacity. In this case we would give further information.

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