



KOMO®
Product certificate
K81163/02



Issued 2019-09-27 Replaces K81163/01
Valid until Indefinite Dated 2016-02-12
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**Mechanical Connections for Reinforcement Steel:
Type AT-SA and AT-SE - Category 2, Ductility Class B**

AT-Ankertechneik B.V.

STATEMENT BY KIWA

This product certificate is issued on the basis of BRL 0504 " Mechanical Connections for Reinforcement Steel " issued on 2012-11-08 including amendment sheet dated December 12, 2018 in accordance with the Kiwa-Regulations for Certification.

The quality system and product characteristics associated with it are checked periodically.

On this basis, Kiwa declares that there is justifiable confidence that the delivered by the certificate holder on delivery meet:

- The technical specification laid down in this product certificate,
- The product requirements laid down in this product certificate and in the BRL provided it is provided with the KOMO® brand in a manner as indicated in this product certificate;

Ronald Karel
Kiwa

The certificate is included in the summary on the website of KOMO: www.komo.nl.
Advice: consult www.kiwa.nl in order to ensure that this certificate is still valid

Disclosure of the certificate is permitted.

CERTIFICATE

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Evaluated is:
quality system
product
Periodic inspection

Mechanical Connections for Reinforcement Steel

TECHNICAL SPECIFICATION

Product specification

General

Mechanical connections for reinforcement steel meet the requirements of section 2 of BRL 0504. Cutting and bending of the rebar ends and rebar anchors meet the requirements of BRL 0503 "Cutting, bending and tack welded (prefab) reinforcing steel structures". The reinforcement steel of these couplers in the grade B500B meet the requirements of BRL 0501 "Reinforcement Steel" and, therefore of table 1 "performance requirements" of NEN 6008.

Only complete mechanical rebar connections made from the rebar anchors and rebar ends mentioned under "additional information" are covered by this KOMO product certificate.

Further specification

Scope

The products are intended to be used in concrete constructions with a dynamic character as described in, among others in NEN-EN 1992-2+C1:2011/NB:2016.

Category 2

For these mechanical connections the manufacturer determines the characteristic according to appendix III of the BRL 0504 with a stress amplitude of $2\sigma_a$ and 2×10^6 stress cycles.

Characteristic fatigue strength

The characteristic fatigue strength ($2\sigma_a$) is determined at 66 N/mm².

The characteristic fatigue strength is determined according to Annex III of the BRL0504 with a stress amplitude of $2\sigma_a$ at 2×10^6 stress cycles and corresponds to the reliability index: $P = 10\%$

In these values the material factor for reinforcing steel: $\gamma_m = 1.15$ is not included in this.

Reinforcement steel diameter

Product are manufactured of:
reinforcement steel grade B500B (hot rolled) with diameter: $\varnothing 12, 16, 20, 25, 32$ and 40 mm.

Reinforcement steel Grade

The reinforcement steel is supplied in the grade B500B. (hot rolled).

The reinforcement steel can be supplied in any required length.

The reinforcement steel can be supplied as straight and bent rods where the bending mandrel must meet the requirements of section 4.3.2 of BRL 0503 "Cutting, bending and tack welded (prefab) reinforcing steel structures".

Markings

The products are provided with a label on which at least the following information is specified clearly and indelibly:

- KOMO[®] logo;
- certificate number;
- name or logo supplier;
- coupler type;
- ductility class;
- characteristic fatigue strength
- category number.



Marking on the product:

The connector piece: a type code designation: "AT" and a production code, with or without "SI"
For more details, see the documentation and processing instructions of the certificate holder.

TIPS FOR THE USER

Inspect the following upon delivery:

- That what has been agreed has been delivered;
- The mark and marking method are correct;
- The products do not exhibit any damage or defect as a result of transport or handling.

If you decide to reject the product(s) based on the above, contact:

- AT-Ankertechnik B.V.
- and, if required,
- Kiwa Nederland B.V.

For the proper handling of the product, refer to the installation instructions of the manufacturer.



Mechanical Connections for Reinforcement Steel

LIST OF DOCUMENTS MENTIONED*

NEN-EN 1992-2 Eurocode 2: Design of concrete structures – Concrete bridges – Design and detailing rules.
 +C1+NB
 NEN 6008 Reinforcement Steel
 BRL 0501 Reinforcement Steel
 BRL 0503 "Cutting, bending and tack welded (prefab) reinforcing steel structures"

* For the correct version of the specified standards please refer to the last change sheet with BRL 0504.

Additional information

<p>Rebar Anchor type: AT-SA Ø 12 - 40 mm</p>	
<p>Rebar End type: AT-SE Ø 12 - 40 mm</p>	

Tightening torque

The tightening torque of the connection between reinforcing bar and connecting piece depends on the diameter of the reinforcing bar and amounts to:

Reinforcing bar diameter in mm	Ø12	Ø16	Ø20	Ø25	Ø32	Ø40
Tightening torque ± 5% in Nm	60	80	100	125	160	200