

Approval & Reception Procedure

DMC – Departamento de Materiais de Construção	
Mechanical Coupler for Steel Reinforcement Bars	Document no. ARP/DMC/018
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1 Reference standard

The Reference standard is the “Norma de Aços para Armaduras Ordinárias de Macau (NA)” (Macau Standard for Steel Reinforcement Bars); BS 8110 : Part 1 : 1985; JGJ 107-2003.

2 Approval procedures

Manufacturer’s information, such as production catalogue, mill certificates of each type (material, grade, dimension and manufacturer) of mechanical coupler, shall be submitted for compliance verification before any delivery.

Compliance verification includes the followings:

- Geometrical properties
- Chemical properties
- Mechanical properties

3 Reception procedure

3.1 Stocking on the site

Each lot of mechanical coupler shall be stocked separately by type, in an adequate manner, not in contact with soil and in a way to facilitate identification and sampling.

Lot is any quantity of pieces of the same type, delivered at one time for inspection. Maximum number of pieces in one lot is 500.

3.2 Information to be submitted

Manufacturer’s Mill Certificates and Quantity of each delivery shall be submitted for reception sampling.

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3.3 Sampling for test

1 sample with 3 numbers of assemblies comprising reinforcement of the size, grade and bar pattern to be used and a coupler of the precise type to be used.

Note: Total length of assembly (specimen) shall be 0.8~1.0 m long, with the coupler at the middle.

3.4 Testing

- Tensile test to check the permanent elongation after loading to $0.6 f_y$. Where f_y is the characteristic yield strength of reinforcement.
- Tensile strength test

4 Acceptance criteria

- Permanent elongation after loading to $0.6 f_y$ should not exceed 0.1 mm and tensile strength should exceed $1.15 f_y$.
- If there are more than one unfavourable test result among all test specimens in a Lot/Batch, this Lot/Batch shall be rejected.
- However, if there is only one unfavourable test result amongst all test specimens in a Lot/Batch, 6 numbers of test specimens may be taken from the same Lot/Batch. If any of the second set is unsatisfactory, this Lot/Batch shall be rejected.