

Tensile Strength Test for Coupler

1.0 Title

Tensile Strength Test for Coupler.

2.0 Purpose

Test performed at the initiation of a product to demonstrate that the properties conform to the requirements.

3.0 Scope

Reinforcement couplers for mechanical splices of bar.

4.0 Reference

- **4.1** ISO 15835, Steels for the reinforcement of concrete.
- 4.2 BS 8110-1, Structural use of concrete (Clause 3.12.8.16.2)
- **4.3** BS EN 10002-1, Metalic Materials Tensile Testing.

5.0 Test Method

- 5.1 Testing equipments are verified and calibrated as conform to ISO 15630-1 clause 5.2.
- **5.2** Test procedures are carried out according to ISO 15630-1 clause 5.
- **5.3** The test involves straining a test piece in tension, generally to fracture, for the purpose of determining mechanical properties.

5.4 Preparation of test pieces:

Coupler shall be assembled and prepared according to installation instruction.

Rebar shall be sufficiently long to ensure a free length between the grips of the testing machine.

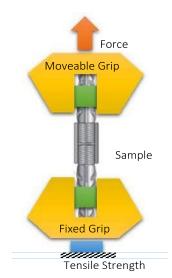
5.4 Testing (BS 8110-1 Clause 3.12.8.16.2)

3.4 Testing (BS 0110 1 clause 3.12.0.10.2)					
No.	Testing	Definition	Criteria		
1	Tensile strength (Rm)	Stress corresponding to the maximum force (Fm)	Should exceed :		
			Grade	Tension	
			250	287.5N/mm ²	
			500 A	525N/mm ²	
			500 B	540 N/mm ²	
2	Permanent Elongation	Increase in the original length	Should not exceed 0.1mm		

^{*}Coupler with length >300mm, bars with a diameter > 40mm, a greater slip than 0.1mm may accepted - ISO 15835-1; 2009 clause 5.3.2

5.5 Testing result

Speciment ref:		
Nominal diameter, d(mm)		
Effective cross sectional area (mm²)		
Load kN @ 0.6f _y		
Max Load, kN		
Tensile Strength N/mm² (Rm)		
Permanent Elongation After Loading to 0.6f _y (mm)		
Location of fracture		



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