

## The testing of PSA-TSE Ø12-M16

**Project name: Testing coupler of PSA-TSE with rebar steel from Denmark**

### Reinforcing bar

Rebar specifications	
Grade:	B550B $f_{yk}=550$ Mpa
Bar size:	12 mm
Rib geometry:	Two rows with one of these rows having an opposite alternating rib angle $\beta$

### Coupler

Coupler specifications	
Production company:	Terwa
Coupler type:	PSA-TSE
Bush material:	20CrMo5/ 20CrMo/ 25CrMo
Bush code:	TW M16 EV CE 217438
Nominal coupler length:	60
Nominal coupler diameter:	22
Samples prepared by:	Terwa
Date assembly:	11.07.2019

### Regulations

The tests were conducted according to ISO 15835-2:2009 (Q). The results of the tests have been evaluated according to ISO 15835-1:2009 and NEN 6008

### Settings

The settings during testing have been selected according to ISO 15835-2:2009 and BRL 0504

### TEST DESCRIPTION

The testing consists in slip and tensile testing of 3 samples of PSA-TSE Ø12-M16

### RESULTS OF THE TESTS

[Test temperature and humidity ° C: ambient]

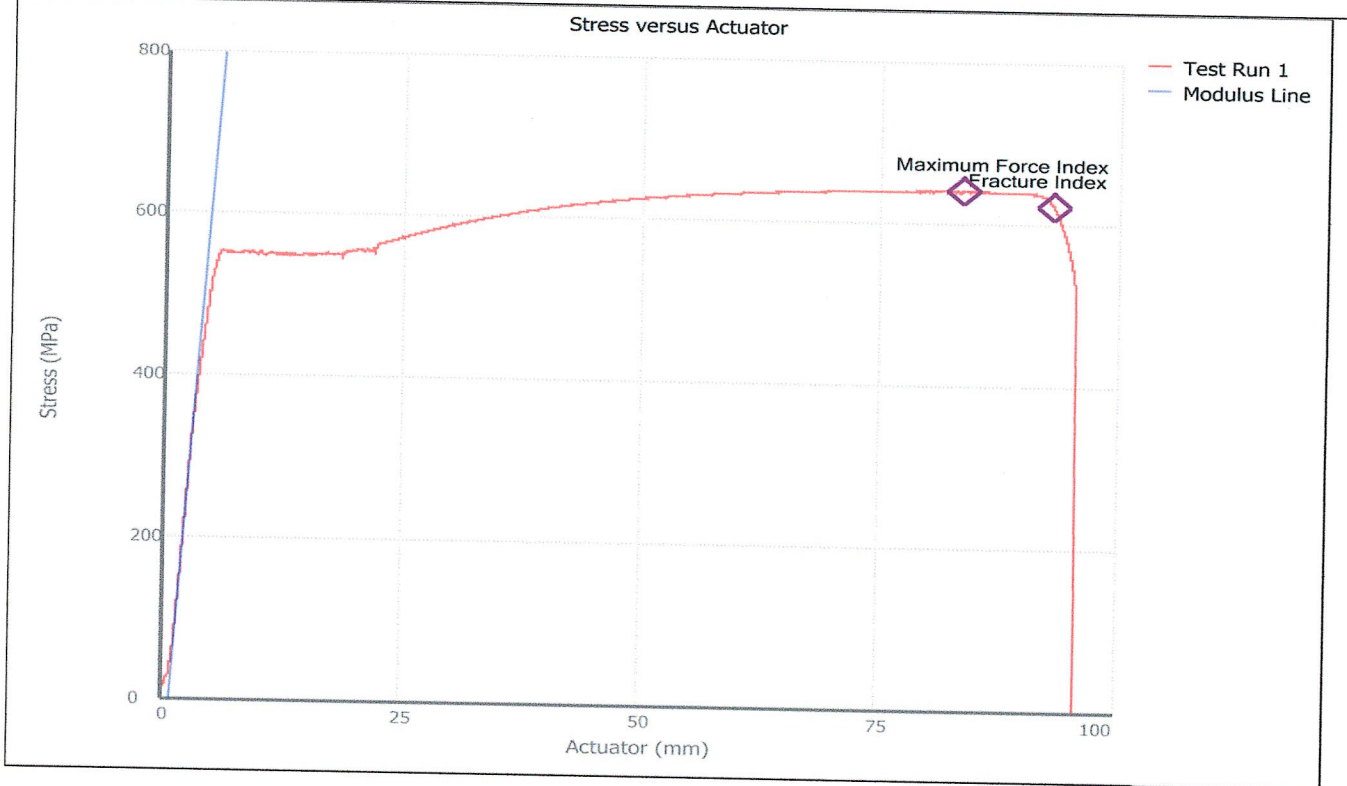
Mark	Type	Slip value [mm]	ReH [MPa]	Rm [MPa]	Rm/ReH	Remarks
Sample 01	PSA-TSE Ø12-M16	0.020	554.106	641.213	1.157	TEST OK! - The rebar broken outside the coupler
Sample 02	PSA-TSE Ø12-M16	0.015	558.438	647.634	1.159	TEST OK! - The rebar broken outside the coupler
Sample 03	PSA-TSE Ø12-M16	0.042	559.505	651.361	1.164	TEST OK! - The rebar broken outside the coupler
REQUIREMENTS		≤0.1	≥ 550	-	≥ 1.08	The coupler is tested in production condition. The connection is mounted and tested by Terwa Romania.

Test were performed using:

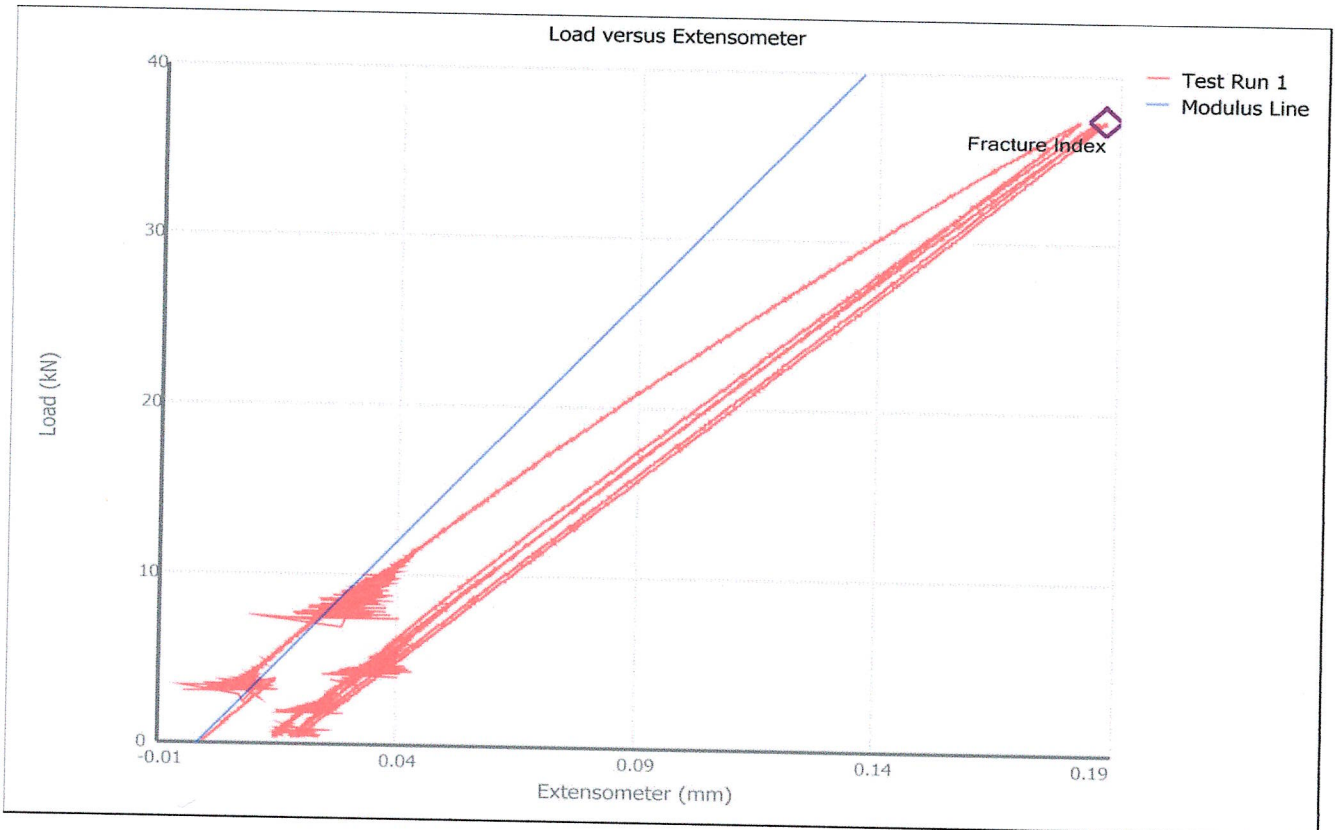
MTS C64.106 - 1000 kN, Inspection certificate no. 4201BV18/13.11.2018

Test run date: Sample 01: 11-Jul-19 3:36:48 PM  
Sample 02: 11-Jul-19 3:54:19 PM  
Sample 03: 11-Jul-19 4:13:44 PM

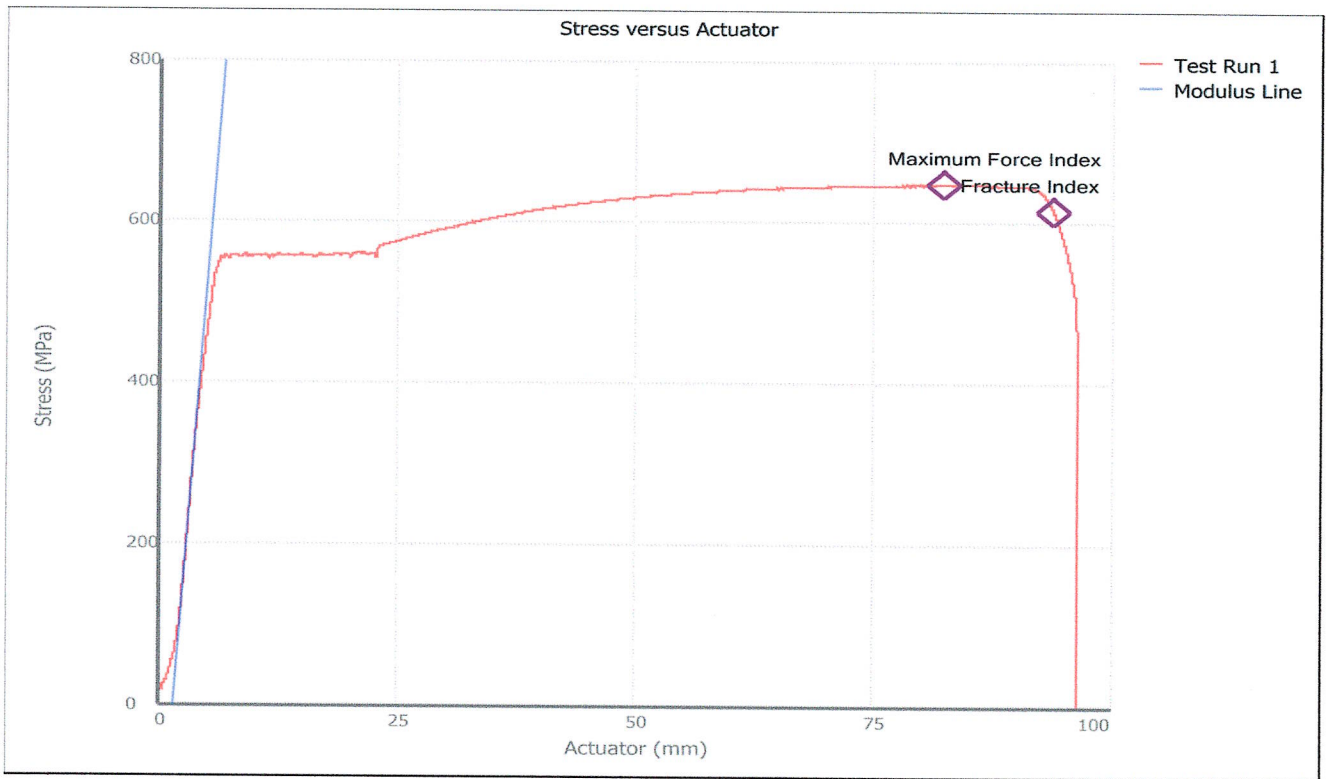
**Slip and tensile graphs**



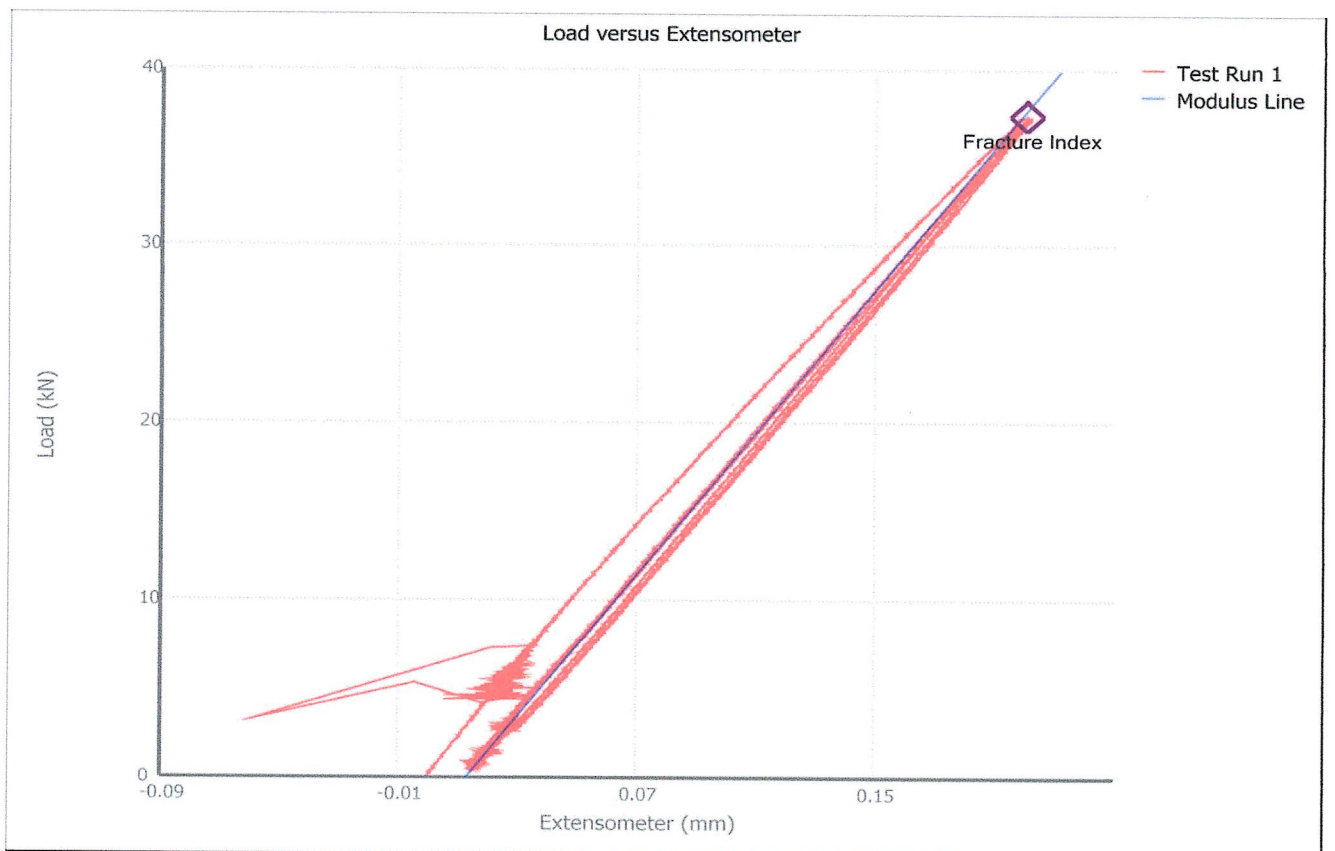
**SAMPLE 01-TENSILE TEST**



**SAMPLE 01-SLIP TEST**

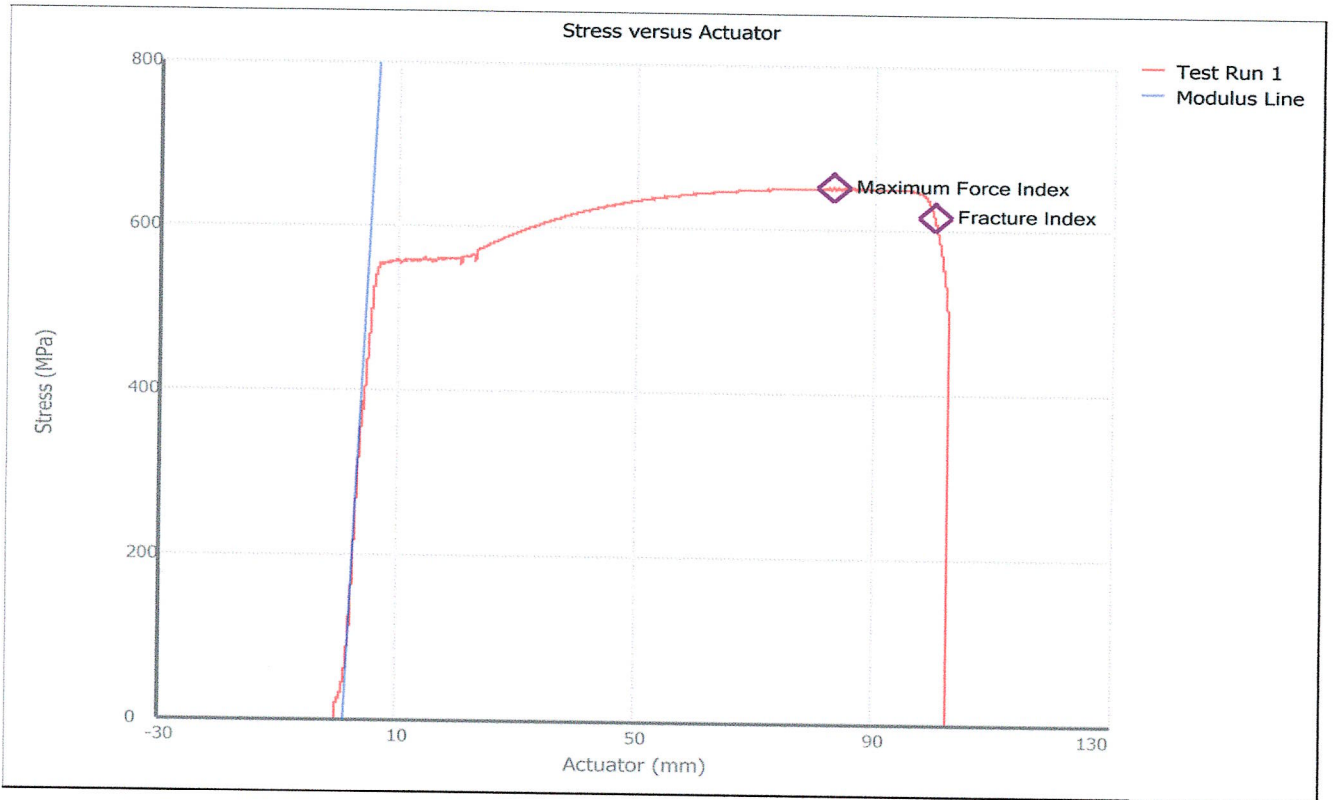


**SAMPLE 02-TENSILE TEST**

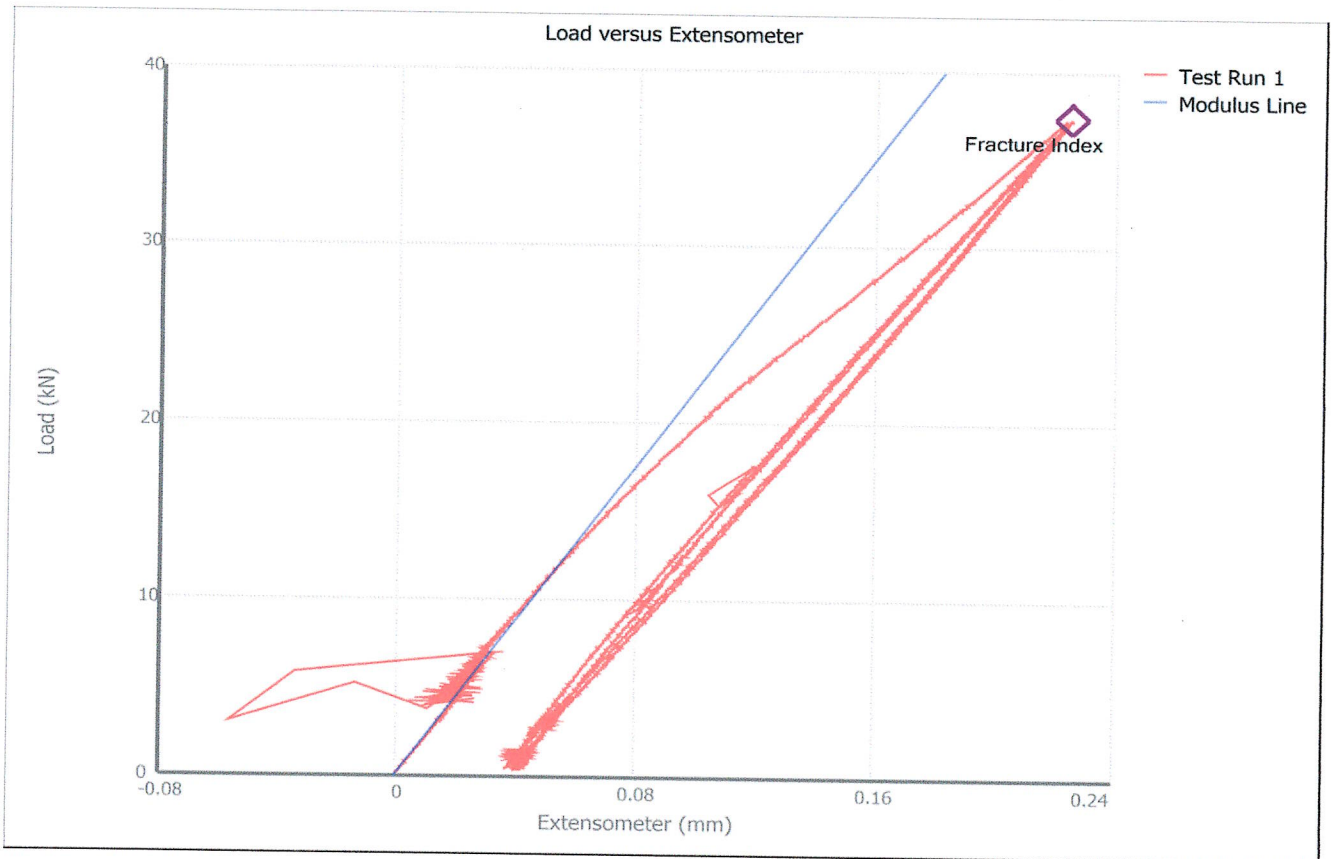


**SAMPLE 02-SLIP TEST**



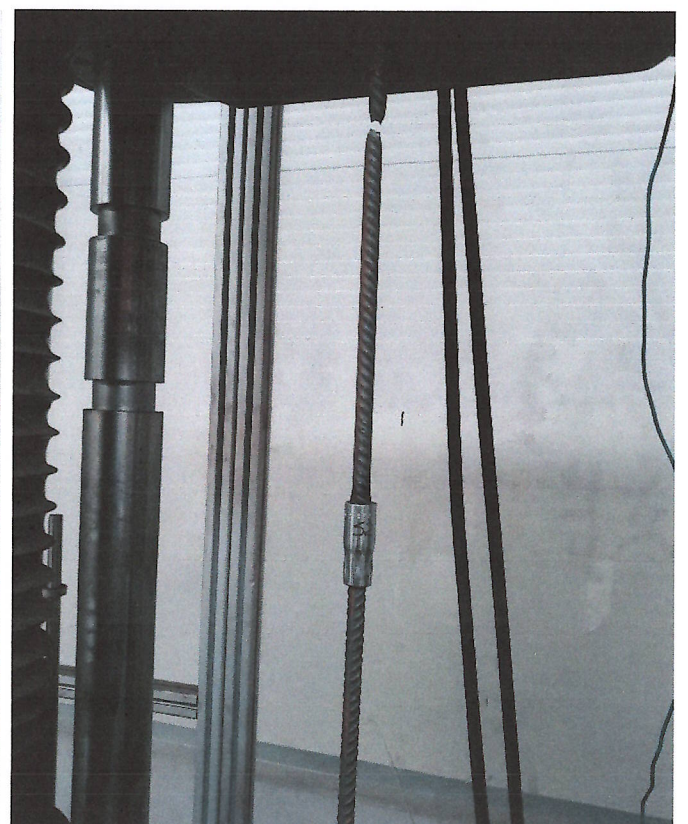
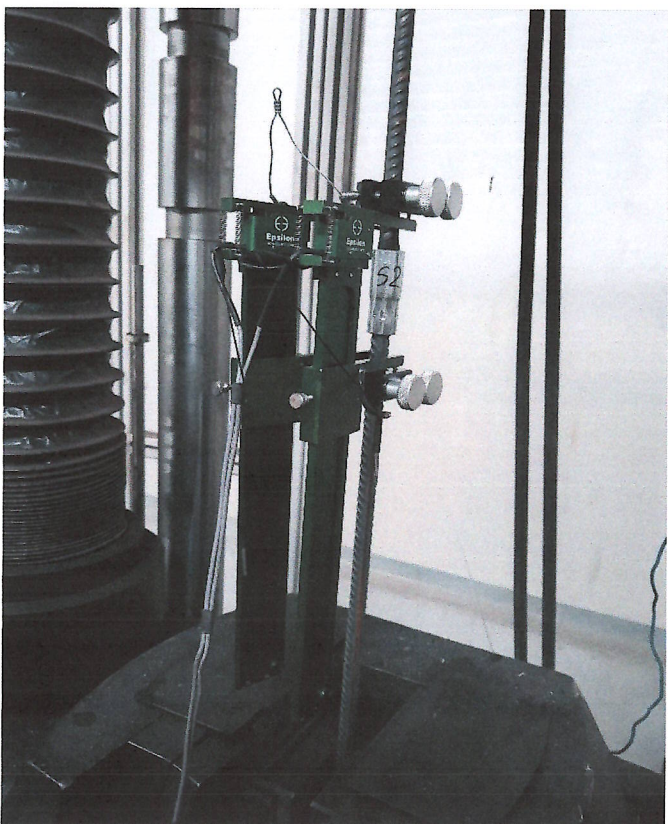
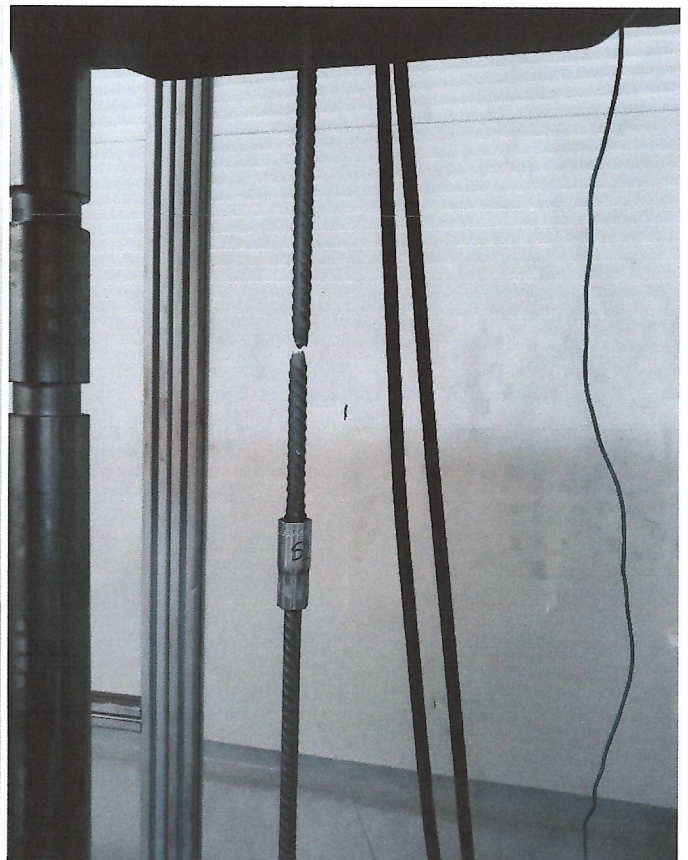
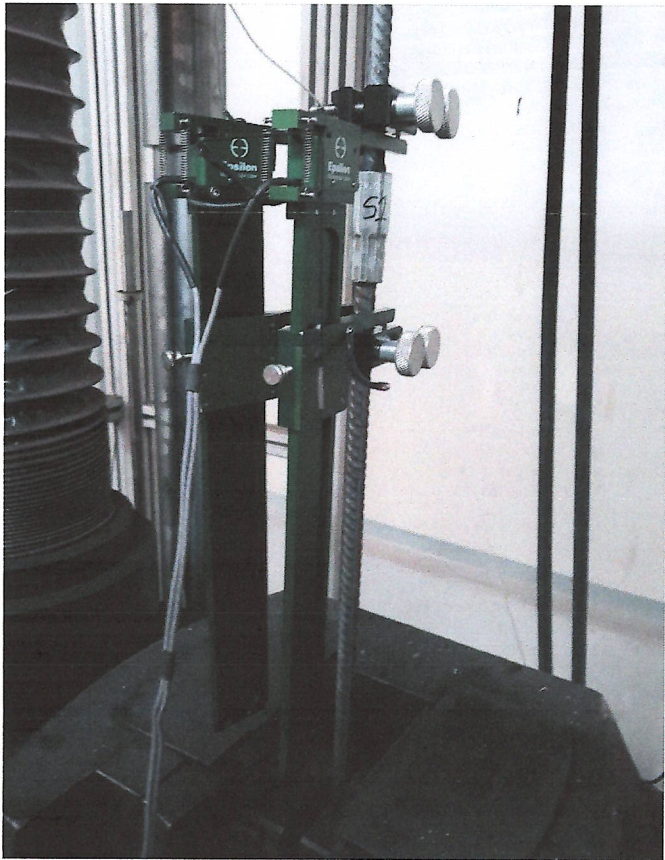


**SAMPLE 03-TENSILE TEST**

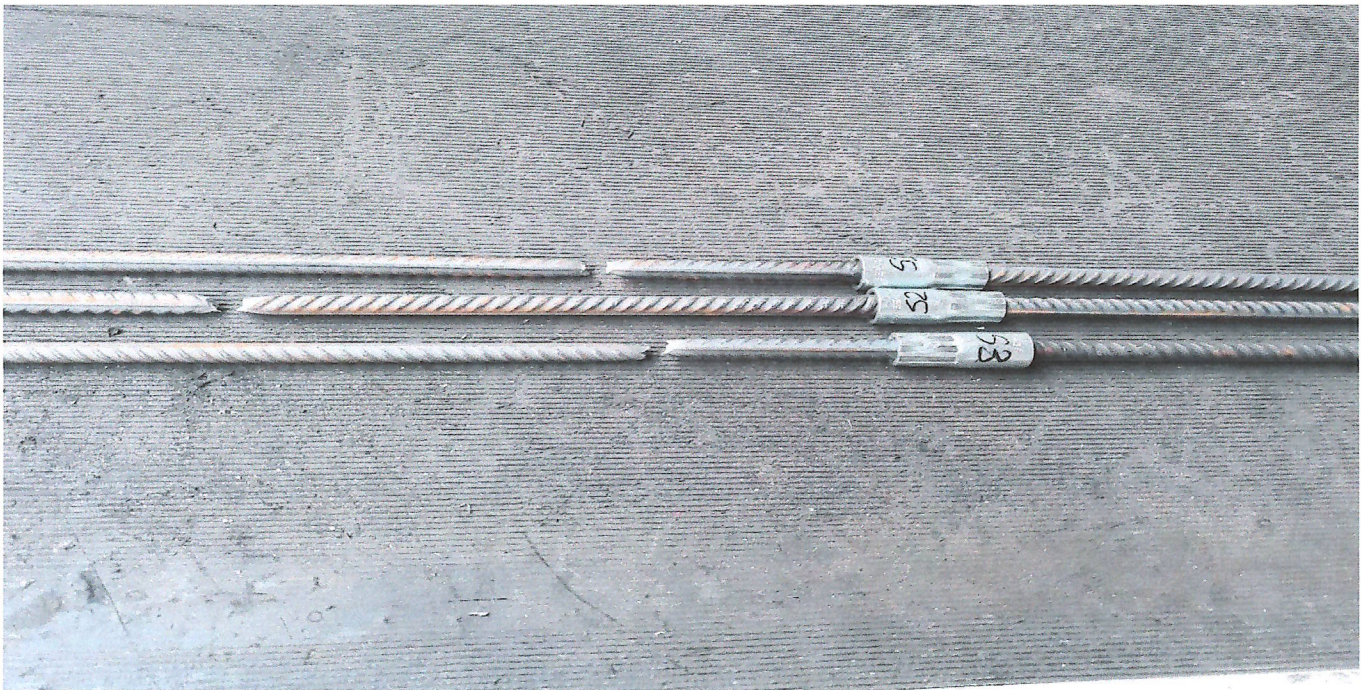
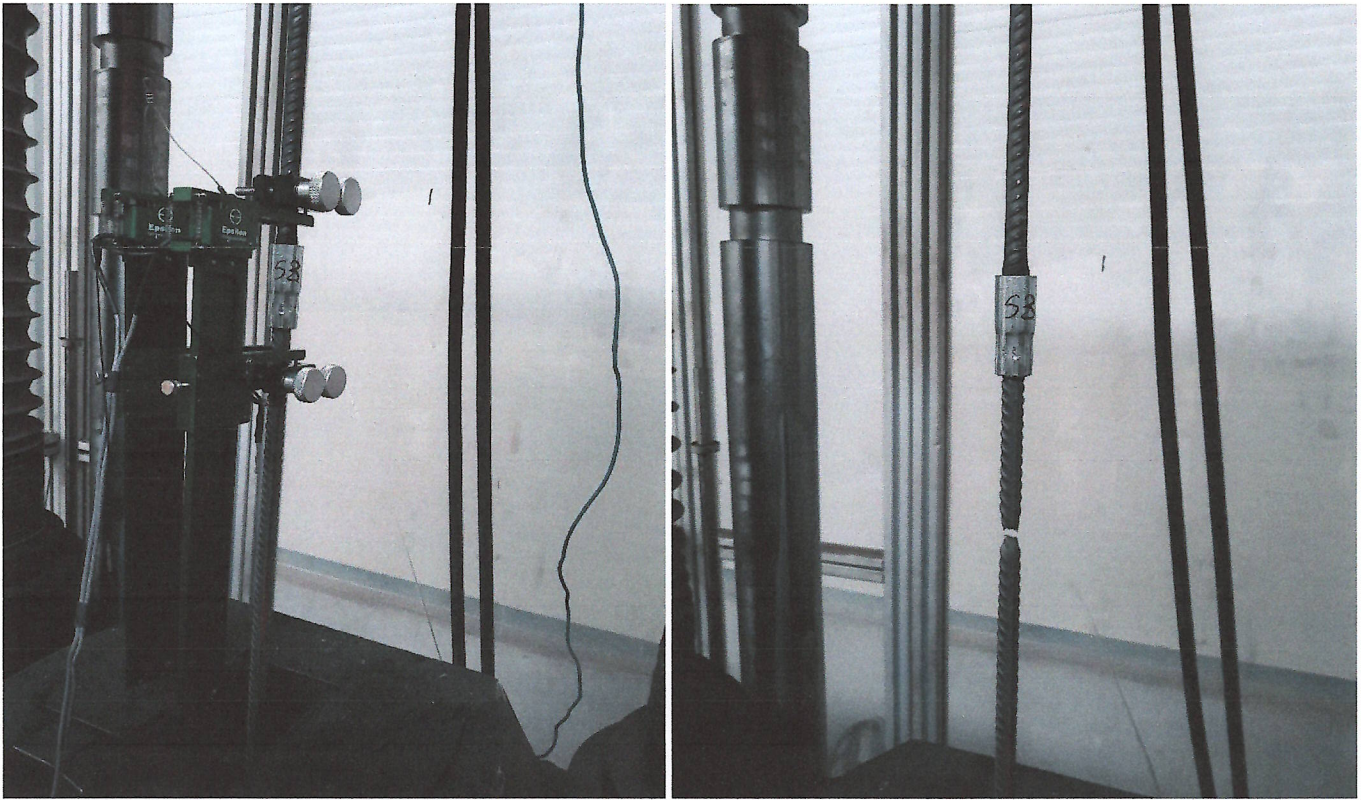


**SAMPLE 03-SLIP TEST**

Test pictures







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