



**STRUCTURAL ENGINEERING DIVISION**  
**Test Floor Laboratory**  
**Department of Civil Engineering**  
**University of Engineering and Technology Lahore, 54890**  
**Pakistan. Ph: 92-42-99029202**

To,  
 Resident Engineer  
 RENARDET S.A ((M-4), Package-III A)  
 Construction Supervision of Four Lane Motorway From Faisalabad to Khanewal Project (M-4)  
 184 km, Package-3A, Shorkot-Dinpur Section 31 km (M/s D & L International.)

Reference # CED/TFL **32609** (Dr. Ali Ahmed)  
 Reference of the request letter # RE/M-4/3A/2019/291

Dated: 11-02-2019  
 Dated: 02-02-2019

**Tension Test Report** (Page – 1/1)

Date of Test 18-02-2019  
 Gauge length 2 inches  
 Description W-Section Steel Strip Tensile and Bend Test

Sr. No.	Designation	Size of Strip	X Section Area	Yield load	Breaking Load	Yield Stress	Ultimate Stress	Elongation	% Elongation	Remarks
1	W-Section	2.06x0.275	0.57	2200	2900	3883.50	5119.15	0.60	30.00	S-1
2		2.06x0.275	0.57	2000	2800	3530.45	4942.63	0.60	30.00	
3	W-Section	2.06x0.275	0.57	2100	2850	3706.97	5030.89	0.60	30.00	S-2
4		2.06x0.275	0.57	2000	2800	3530.45	4942.63	0.60	30.00	
5	W-Section	2.06x0.275	0.57	2100	2900	3706.97	5119.15	0.55	27.50	S-3
6		2.06x0.275	0.57	2100	2800	3706.97	4942.63	0.60	30.00	

**Only Six Samples for Tensile and Six Samples for Bend Test**

**Bend Test**

Strip Taken from W-Section Bend Test Through 180° is Satisfactory

Strip Taken from W-Section Bend Test Through 180° is Satisfactory

Strip Taken from W-Section Bend Test Through 180° is Satisfactory

Strip Taken from W-Section Bend Test Through 180° is Satisfactory

Strip Taken from W-Section Bend Test Through 180° is Satisfactory

Strip Taken from W-Section Bend Test Through 180° is Satisfactory

**I/C Testing Laboratoires**  
**UET Lahore, Pakistan.**

Note:

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- 2- The above results pertain to sample /samples supplied to this laboratory.
- 3- Sealed sample / Unsealed sample / Marked sample/Signed Samples



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To,  
 Project Manager  
 Zahir Khan & Brothers  
 DHA Bahawalpur  
 (Ittefaq Steel)

Reference # CED/TFL **32639** (Dr. Ali Ahmed)  
 Reference of the request letter # ZKB/PM/SEC/A-197

Dated: 15-02-2019  
 Dated: 14-02-2019

**Tension Test Report** (Page -1/1)

Date of Test 18-02-2019  
 Gauge length 8 inches  
 Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ size		Area (in <sup>2</sup> )		Yield load (kg)	Breaking Load (kg)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
		Nominal (#)	Actual (inch)	Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.374	3	0.374	0.11	0.110	3300	5400	66200	66160	108200	108300	1.30	16.3	
2	0.368	3	0.371	0.11	0.108	3200	5300	64200	65130	106200	107900	1.20	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and one sample for bend test</b>														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

**I/C Testing Laboratoires**  
**UET Lahore, Pakistan.**

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**University of Engineering and Technology Lahore, 54890**  
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To,  
 Sub Divisional Officer  
 Buildings Sub Division No. 12  
 Lahore  
 (Construction of Office Complex of Food Directorate Divisional Food Office Lahore and DFC,  
 Office Lahore)  
 Reference # CED/TFL **32642** (Dr. Ali Ahmed) Dated: 15-02-2019  
 Reference of the request letter # 24/SDO12th Dated: 12-01-2019

**Tension Test Report** (Page -1/1)

Date of Test 18-02-2019  
 Gauge length 8 inches  
 Description Deformed Steel Bar Tensile Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size (inch)		Area (in <sup>2</sup> )		Yield load (kg)	Breaking Load (kg)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
		Nominal	Actual	Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.365	3/8	0.370	0.11	0.107	3100	4800	62200	63610	96200	98500	1.20	15.0	
2	0.372	3/8	0.373	0.11	0.109	3200	4900	64200	64570	98200	98900	1.20	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile test</b>														
Bend Test														

**I/C Testing Laboratories**  
**UET Lahore, Pakistan.**

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**Test Floor Laboratory**  
**Department of Civil Engineering**  
**University of Engineering and Technology Lahore, 54890**  
**Pakistan. Ph: 92-42-99029202**

To,  
 Executive Engineer (UCET)  
 University of Sargodha  
 Construction of Academic Block (Electrical) at University College of Engineering &  
 Technology, University of Sargodha

Reference # CED/TFL **32643** (Dr. Ali Ahmed)  
 Reference of the request letter # SU/XEN/356

Dated: 15-02-2019  
 Dated: 12-02-2019

**Tension Test Report** (Page -1/1)

Date of Test 18-02-2019  
 Gauge length 8 inches  
 Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size (inch)		Area (in <sup>2</sup> )		Yield load (kg)	Breaking Load (kg)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
		Nominal	Actual	Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.375	3/8	0.375	0.11	0.110	3100	5100	62200	62030	102200	102100	1.00	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only one sample for tensile and one sample for bend test</b>														
Bend Test														
3/8" Dia Bar Bend Test Through 180° is Satisfactory														

**I/C Testing Laboratoires**  
**UET Lahore, Pakistan.**

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**Test Floor Laboratory**  
**Department of Civil Engineering**  
**University of Engineering and Technology Lahore, 54890**  
**Pakistan. Ph: 92-42-99029202**

To,  
 Deputy Director (Engg.)  
 Faisalabad Dev. Authority,  
 Faisalabad  
 (Construction of Kashmir Bridge Underpass Faisalabad)

Reference # CED/TFL **32644** (Dr. Ali Ahmed)

Dated: 15-02-2019

Reference of the request letter # AD/FDA-2019/R-86/100-02

Dated: 06-02-2019

**Tension Test Report** (Page -1/1)

Date of Test 18-02-2019

Gauge length 8 inches

Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ size		Area (in <sup>2</sup> )		Yield load (kg)	Breaking Load (kg)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
		Nominal (#)	Actual (inch)	Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.374	3	0.374	0.11	0.110	3300	5400	66200	66140	108200	108300	1.10	13.8	
2	0.377	3	0.376	0.11	0.111	3200	5400	64200	63670	108200	107500	1.00	12.5	
3	5.432	11	1.426	1.56	1.597	54600	70000	77200	75370	98900	96700	1.40	17.5	
4	5.461	11	1.430	1.56	1.605	51000	68400	72100	70030	96700	94000	1.30	16.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only four samples for tensile and two samples for bend test</b>														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														
#11 Bar Bend Test Through 180° is Satisfactory														

**I/C Testing Laboratoires**  
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To,  
M/S Akbar and Associates  
Lahore  
(LSM Foods at Sunder Industrial Estate Lahore)

Reference # CED/TFL **32645** (Dr. Ali Ahmed)  
Reference of the request letter # AA/L/LSM/01/2019

Dated: 15-02-2019  
Dated: 15-02-2019

**Tension Test Report** (Page -1/1)

Date of Test 18-02-2019  
Gauge length 8 inches  
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size (inch)		Area (in <sup>2</sup> )		Yield load (kg)	Breaking Load (kg)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
		Nominal	Actual	Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.386	3/8	0.380	0.11	0.113	3600	4800	72200	70010	96200	93400	1.30	16.3	
2	0.387	3/8	0.381	0.11	0.114	3600	4800	72200	69690	96200	93000	1.40	17.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and one sample for bend test</b>														
Bend Test														
3/8" Dia Bar Bend Test Through 180° is Satisfactory														

**I/C Testing Laboratoires**  
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To,  
M/S Defence Housing Authority.  
Lahore Cantt  
(Construction of Mosque Sector-L DHA Ph-V)(M/s Ghazi Builders)

Reference # CED/TFL **32646** (Dr. Ali Ahmed)  
Reference of the request letter # 408/241/E/Lab/453/002

Dated: 15-02-2019  
Dated: 15-02-2019

**Tension Test Report** (Page -1/1)

Date of Test 18-02-2019  
Gauge length 8 inches  
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ size		Area (in <sup>2</sup> )		Yield load (kg)	Breaking Load (kg)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
		Nominal (#)	Actual (inch)	Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.379	3	0.377	0.11	0.111	3000	4100	60200	59360	82200	81200	1.50	18.8	Mughal Steel
2	0.365	3	0.370	0.11	0.107	3000	3900	60200	61650	78200	80200	1.50	18.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and one sample for bend test</b>														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

**I/C Testing Laboratoires**  
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**Pakistan. Ph: 92-42-99029202**

To,  
 Resident Engineer  
 Zeeruk International (Pvt) Ltd  
 Construction of Player Accommodation (02 Blocks) (Package VII) at Sports Complex Narowal

Reference # CED/TFL **32648** (Dr. Ali Ahmed)  
 Reference of the request letter # ZI/4-28/19/

Dated: 18-02-2019  
 Dated: 18-02-2019

**Tension Test Report** (Page -1/1)

Date of Test 18-02-2019  
 Gauge length 8 inches  
 Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size		Area (in <sup>2</sup> )		Yield load (kg)	Breaking Load (kg)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
		Nominal (#)	Actual (inch)	Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.360	3	0.367	0.11	0.106	3100	5100	62200	64530	102200	106200	1.10	13.8	
2	0.359	3	0.367	0.11	0.106	3100	5100	62200	64720	102200	106500	1.10	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and one sample for bend test</b>														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

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