



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

To,  
M/S Transtech Engineering Company  
NESPAK-CMEC  
PTPL  
Construction of 1263 MW Punjab Thermal Power Plant, Jhang (Ittehad Steel)

Reference # CED/TFL **37551** (Dr. M Riwan Riaz)  
Reference of the request letter # TEC/UET/21122005

Dated: 21-12-2021  
Dated: 20-12-2021

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

Date of Test 30-12-2021  
Gauge length 8 inches  
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size (mm)		Area (in <sup>2</sup> )		Yield load (kg)	Breaking Load (kg)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Heat No.
		Nominal	Actual	Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.416	10	10.02	0.12	0.122	3800	5600	69812	68510	102881	101000	1.40	17.5	197
2	0.416	10	10.02	0.12	0.122	3700	5600	67975	66700	102881	101000	1.30	16.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and one sample for bend test</b>														
Bend Test														
10mm Dia Bar Bend Test Through 180° is Satisfactory														

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

Note:

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

To,  
Resident Engineer  
NESPAK  
Dualization of Swabi – Jehangira Road Project  
(WMI)

Reference # CED/TFL **37591** (Dr. Usman Akmal)  
Reference of the request letter # 4266/103/PKHA/FM/102/38

Dated: 24-12-2021  
Dated: 15-12-2021

**Tension Test Report** (Page -1/3)

Date of Test 30-12-2021  
Gauge length 640 mm  
Description Steel Strand Tensile Test as per ASTM A-416-94a

Sr. No.	Nominal Diameter	Nominal Weight	Measured weight	Yield strength clause (6.3)		Breaking strength clause (6.2)		Young's Modulus of Elasticity "E"	% Elongation	Remarks / Coil No.
	(mm)	(kg/km)	(kg/km)	(kg)	(kN)	(kg)	(kN)	GPa		
1	12.70 (1/2")	775.0	781.0	17800	174.62	19500	191.30	199	>3.50	xx
2	12.70 (1/2")	775.0	784.0	17500	171.68	19800	194.24	199	>3.50	xx
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
<b>Only two samples for Test</b>										

Note:

1. Modulus of Elasticity is based on nominal steel area of the steel strand vide clause 13.3 of ASTM – A416a
2. Load versus percentage strain graphs are attached

**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**

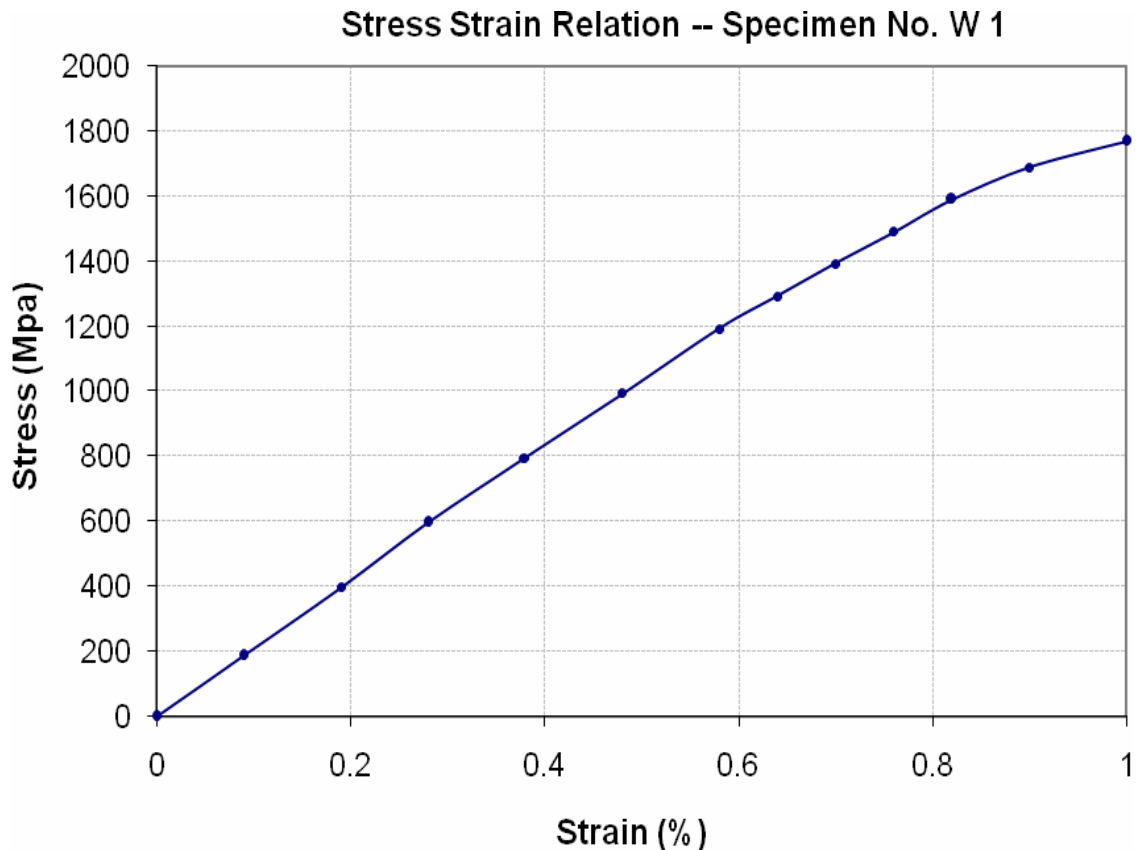
To,  
Resident Engineer  
NESPAK  
Dualization of Swabi – Jehangira Road Project  
(WMI)

Reference # CED/TFL **37591** (Dr. Usman Akmal)  
Reference of the request letter # 4266/103/PKHA/FM/102/38

Dated: 24-12-2021

Dated: 15-12-2021

**Graph** (Page – 2/3)



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

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**Test Floor Laboratory**  
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**University of Engineering and Technology Lahore, 54890**  
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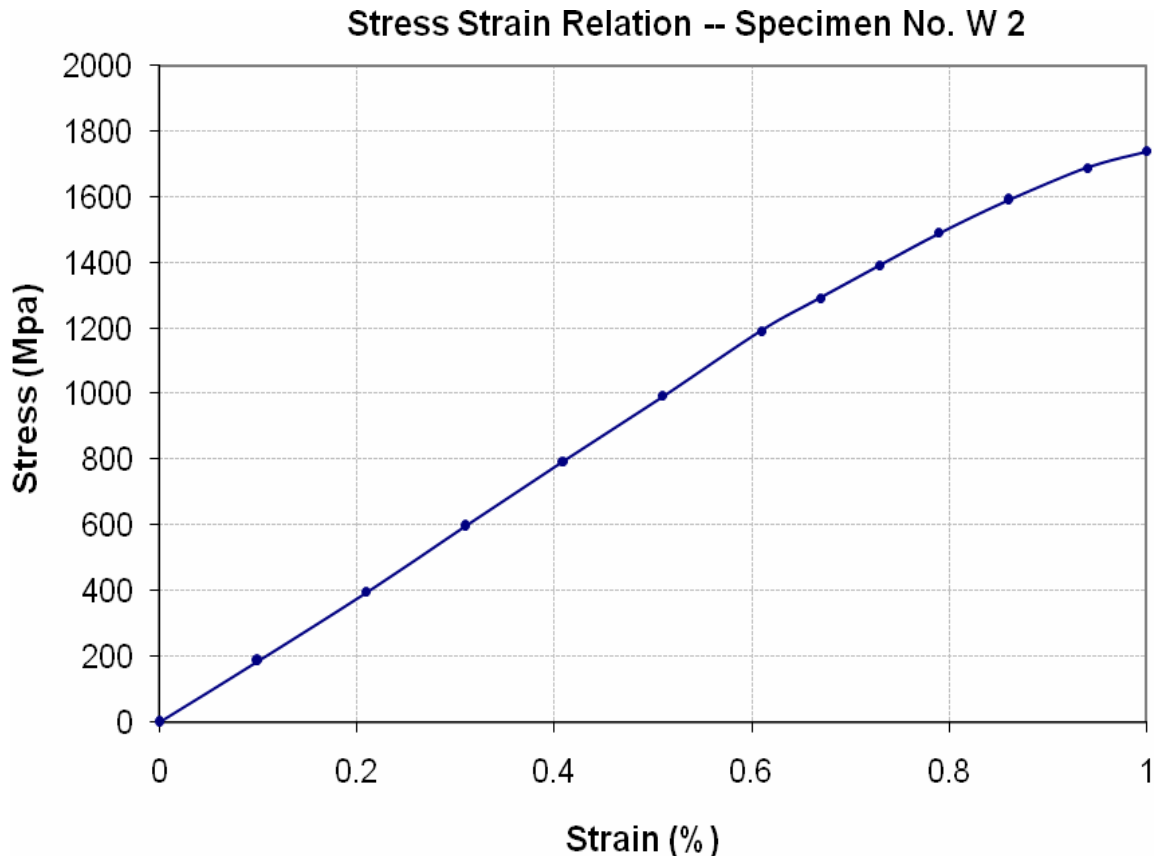
To,  
Resident Engineer  
NESPAK  
Dualization of Swabi – Jehangira Road Project  
(WMI)

Reference # CED/TFL **37591** (Dr. Usman Akmal)  
Reference of the request letter # 4266/103/PKHA/FM/102/38

Dated: 24-12-2021

Dated: 15-12-2021

**Graph** (Page – 3/3)



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

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

To,  
Project Manager  
Tarbela 5 Consultants

Reference # CED/TFL **37604, 628** (Dr. Usman Akmal)  
Reference of the request letter # T5C-UET-QUA-60-00909

Dated: 28-12-2021  
Dated: 24-12-2021

**Tension Test Report** (Page – 1/4)

Date of Test 30-12-2021  
Gauge length 640 mm  
Description Steel Strand Tensile Test as per ASTM A-416-94a

Sr. No.	Nominal Diameter	Nominal Weight	Measured weight	Yield strength clause (6.3)		Breaking strength clause (6.2)		Young's Modulus of Elasticity	% Elongation	Remarks / Coil No.
	(mm)	(kg/km)	(kg/km)	(kg)	(kN)	(kg)	(kN)	E, GPa		
1	15.24 (0.6")	1102.0	1106.0	22600	221.71	27300	267.81	199	>3.50	xx
2	15.24 (0.6")	1102.0	1102.0	24900	244.27	27400	268.79	198	>3.50	xx
3	15.24 (0.6")	1102.0	1104.0	24500	240.35	27400	268.79	199	>3.50	xx
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-

**Only three samples for Test**

Note:

1. Modulus of Elasticity is based on nominal steel area of the steel strand vide clause 13.3 of ASTM – A416a
2. Load versus percentage strain graphs are attached

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

Note:

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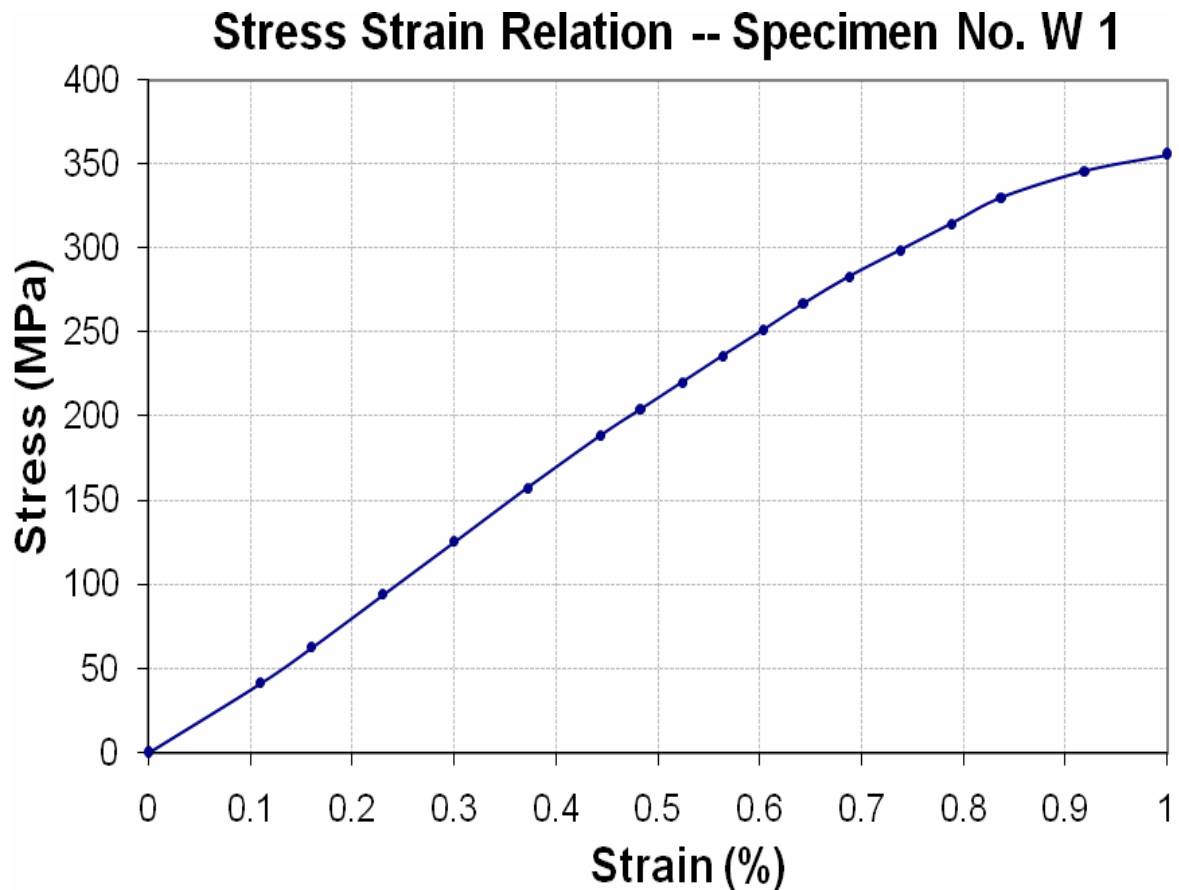
To,  
Project Manager  
Tarbela 5 Consultants

Reference # CED/TFL **37604, 628** (Dr. Usman Akmal)  
Reference of the request letter # T5C-UET-QUA-60-00909

Dated: 28-12-2021

Dated: 24-12-2021

**Graph** (Page – 2/4)



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

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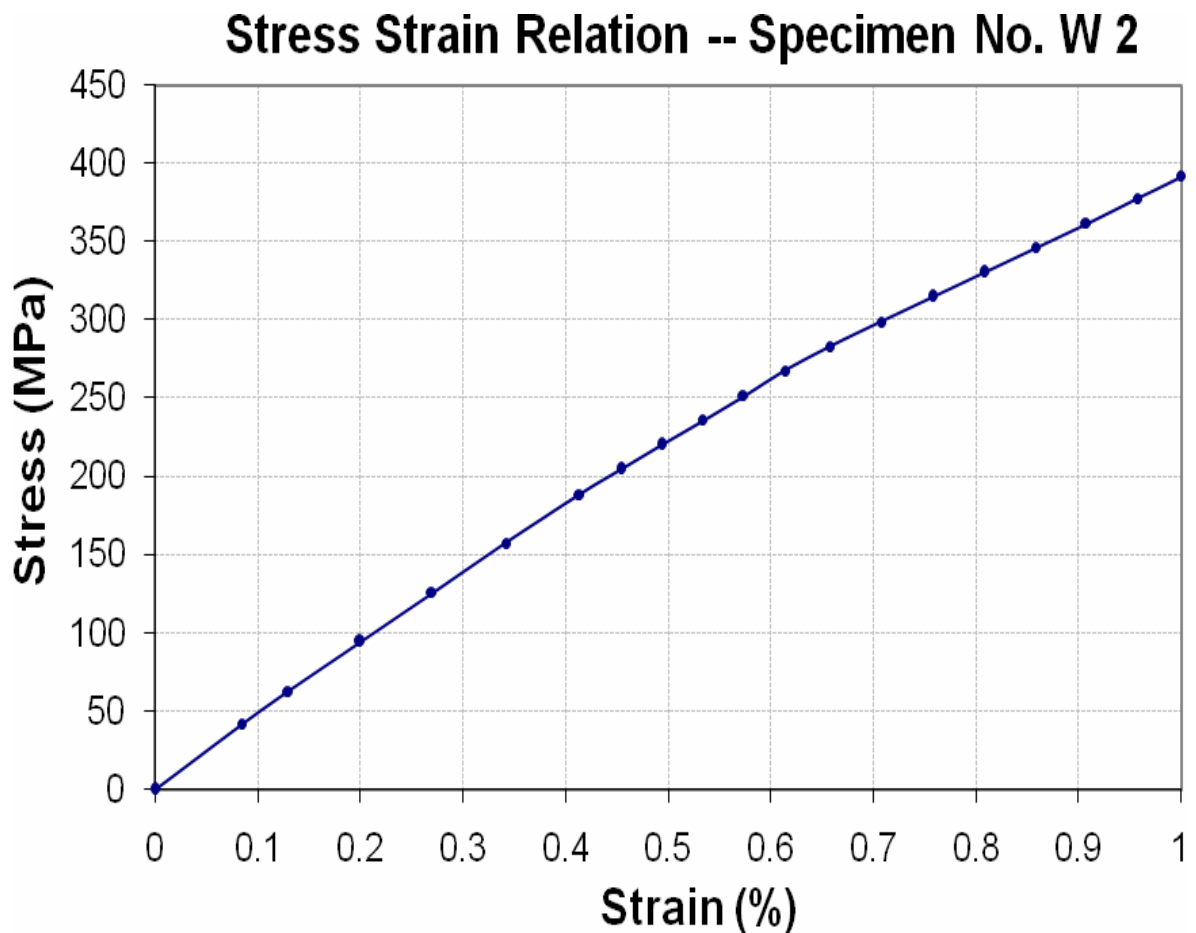
**STRUCTURAL ENGINEERING DIVISION**  
**Test Floor Laboratory**  
**Department of Civil Engineering**  
**University of Engineering and Technology Lahore, 54890**  
**Pakistan. Ph: 92-42-99029202**

To,  
Project Manager  
Tarbela 5 Consultants

Reference # CED/TFL **37604, 628** (Dr. Usman Akmal)  
Reference of the request letter # T5C-UET-QUA-60-00909

Dated: 28-12-2021  
Dated: 24-12-2021

**Graph** (Page – 3/4)



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

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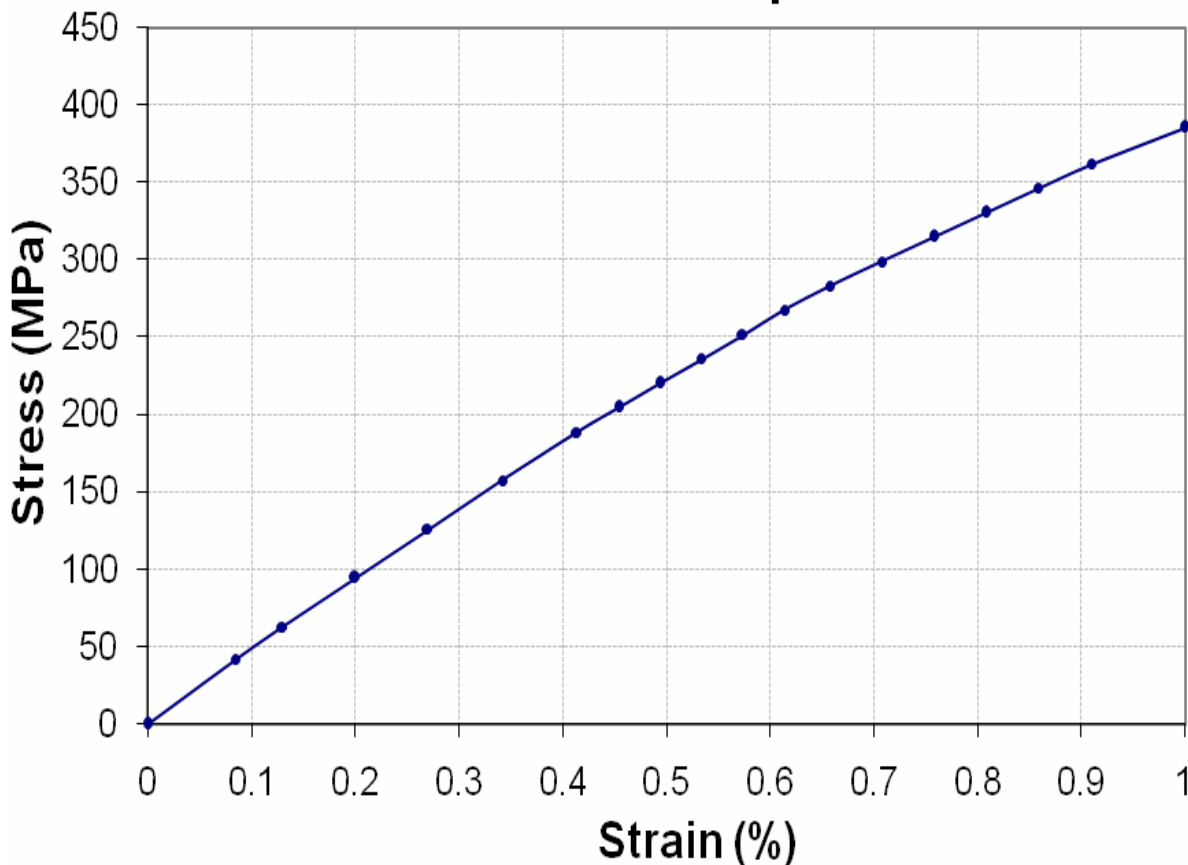
To,  
Project Manager  
Tabela 5 Consultants

Reference # CED/TFL **37604, 628** (Dr. Usman Akmal)  
Reference of the request letter # T5C-UET-QUA-60-00909

Dated: 28-12-2021  
Dated: 24-12-2021

**Graph** (Page – 4/4)

**Stress Strain Relation -- Specimen No. W 3**



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

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**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  
 NESPAK  
 Construction of Underpass Across Bedian Road Connecting Phase-VI with Phase-IX, DHA,  
 Lahore

Reference # CED/TFL **37609** (Dr. Usman Akmal)  
 Reference of the request letter # 3790/102/IUK/UET/01/17

Dated: 28-12-2021  
 Dated: 25-12-2021

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

Date of Test 30-12-2021  
 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	4.123	10	1.242	1.27	1.212	36000	52000	62500	65480	90300	94600	1.60	20.0	FF Steel
2	4.176	10	1.250	1.27	1.228	39600	54400	68800	71110	94500	97700	1.40	17.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and one sample for bend test</b>														
Bend Test														
#10 Bar Bend Test Through 180° is Satisfactory														

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

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**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  
 Pillar & Sons  
 Rumanza Golf & Country Club, DHA Multan

Reference # CED/TFL **37612** (Dr. Usman Akmal)  
 Reference of the request letter # P&S/OTH/GEN/00055

Dated: 29-12-2021  
 Dated: 14-12-2021

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

Date of Test 30-12-2021  
 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	4.224	10	1.257	1.27	1.241	37000	52400	64300	65690	91000	93100	1.60	20.0	SJ Steel
2	4.212	10	1.256	1.27	1.238	38000	53000	66000	67650	92000	94400	1.60	20.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and one sample for bend test</b>														
Bend Test														
#10 Bar Bend Test Through 180° is Satisfactory														

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**UET Lahore, Pakistan.**

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

To,  
 Engineer In Charge  
 Jamia Al-Mustafa Asna Ashriya Trust (Register)  
 Construction of Madrassa Hostel Building Knowledge City Feruz Pur Road Lahore

Reference # CED/TFL **37613** (Dr. M Rizwan Riaz)  
 Reference of the request letter # JMT/02/2021

Dated: 29-12-2021  
 Dated: 27-12-2021

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

Date of Test 30-12-2021  
 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	0.411	3	0.392	0.11	0.121	3900	5500	78200	71130	110200	100400	1.20	15.0	
2	0.411	3	0.392	0.11	0.121	4000	5500	80200	73040	110200	100500	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**  
**UET Lahore, Pakistan.**

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

To,  
M/S Defence Housing Authority.  
Lahore Cantt  
(Construction of (GIS) Grid Ststion DHA MOC Phase-VI) – (M/s Netracon Technologies (Pvt) Ltd))  
Reference # CED/TFL **37614** (Dr. M Rizwan Riaz) Dated: 29-12-2021  
Reference of the request letter # 408/241/E/Lab/198/348 Dated: 28-12-2021

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

Date of Test 30-12-2021  
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	0.386	3	0.380	0.11	0.113	3400	5100	68200	66100	102200	99200	1.30	16.3	Fazal Steel
2	0.384	3	0.379	0.11	0.113	3400	5100	68200	66340	102200	99600	1.30	16.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and one sample for bend test</b>														
<b>Bend Test</b>														
#3 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,  
 Resident Engineer  
 NESPAK  
 Infrastructure Development of Quaid-e-Azam Business Park on Motorway M-2, District  
 Sheikhpura

Reference # CED/TFL **37615** (Dr. M Rizwan Riaz)  
 Reference of the request letter # 4163/11/MY/01/108

Dated: 29-12-2021  
 Dated: 27-12-2021

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

Date of Test 30-12-2021  
 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	0.368	3	0.371	0.11	0.108	3300	4800	66200	67180	96200	97800	1.40	17.5	Faizan Steel
2	0.389	3	0.382	0.11	0.114	3300	5200	66200	63620	104200	100300	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														

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

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

To,  
Sub Divisional Officer  
Highway Sub Division D.G. Khan  
(Construction of Pile Foundation Bridge at Basti Gajjuji & Tigyani at D.G. Khan)

Reference # CED/TFL **37616** (Dr. Usman Akmal)  
Reference of the request letter # 2455

Dated: 29-12-2021  
Dated: 23-10-2021

**Tension Test Report** (Page -1/4)

Date of Test 30-12-2021  
Gauge length 640 mm  
Description Steel Strand Tensile Test as per ASTM A-416-94a

Sr. No.	Nominal Diameter	Nominal Weight	Measured weight	Yield strength clause (6.3)		Breaking strength clause (6.2)		Young's Modulus of Elasticity "E"	% Elongation	Remarks / Coil No.
	(mm)	(kg/km)	(kg/km)	(kg)	(kN)	(kg)	(kN)			
1	12.70 (1/2")	775.0	784.0	18200	178.54	19800	194.24	198	>3.50	xx
2	12.70 (1/2")	775.0	784.0	18500	181.49	19700	193.26	199	>3.50	xx
3	12.70 (1/2")	775.0	784.0	17500	171.68	19600	192.28	199	>3.50	xx
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-

**Only three samples for Test**

Note:

1. Modulus of Elasticity is based on nominal steel area of the steel strand vide clause 13.3 of ASTM – A416a
2. Load versus percentage strain graphs are attached

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

Note:

- 1- You can See your reports On Internet in the following web site  
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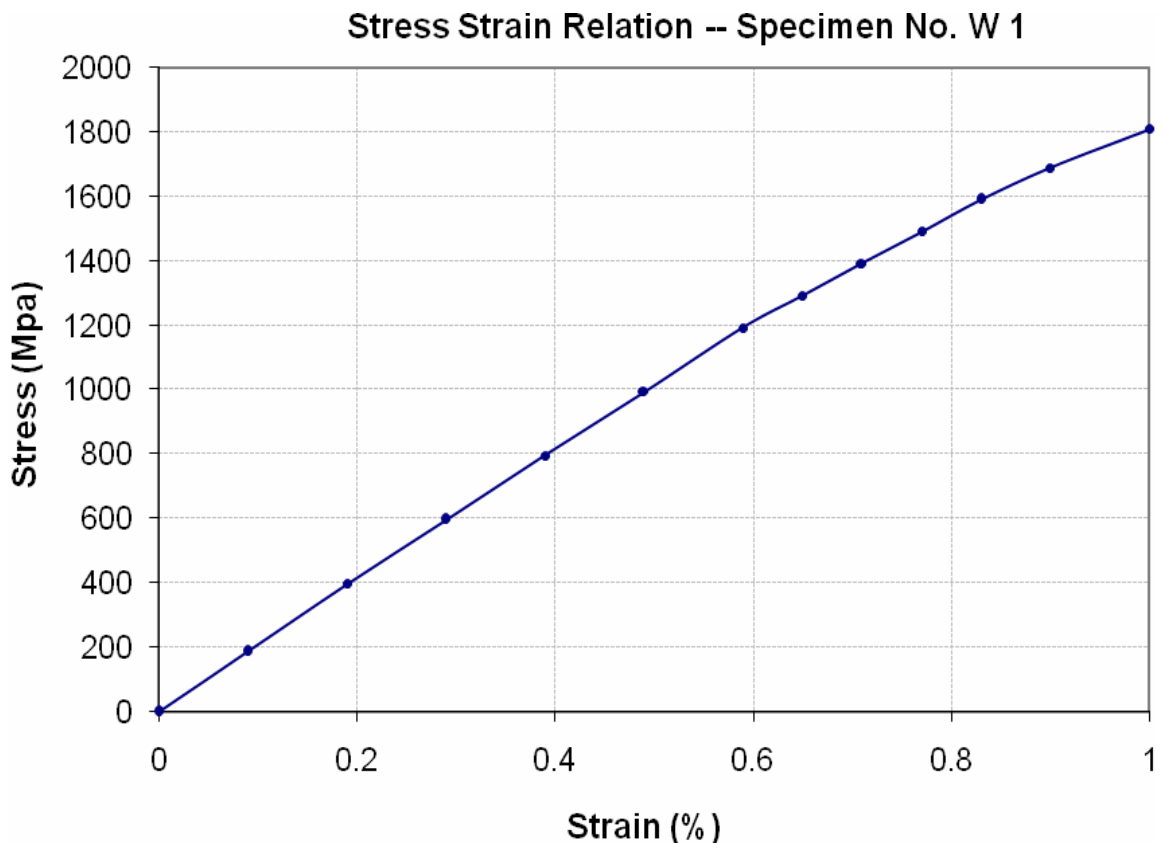
**STRUCTURAL ENGINEERING DIVISION**  
**Test Floor Laboratory**  
**Department of Civil Engineering**  
**University of Engineering and Technology Lahore, 54890**  
**Pakistan. Ph: 92-42-99029202**

To,  
Sub Divisional Officer  
Highway Sub Division D.G. Khan  
(Construction of Pile Foundation Bridge at Basti Gajjuji & Tigyani at D.G. Khan)

Reference # CED/TFL **37616** (Dr. Usman Akmal)  
Reference of the request letter # 2455

Dated: 29-12-2021  
Dated: 23-10-2021

**Graph** (Page – 2/4)



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

**Note:**

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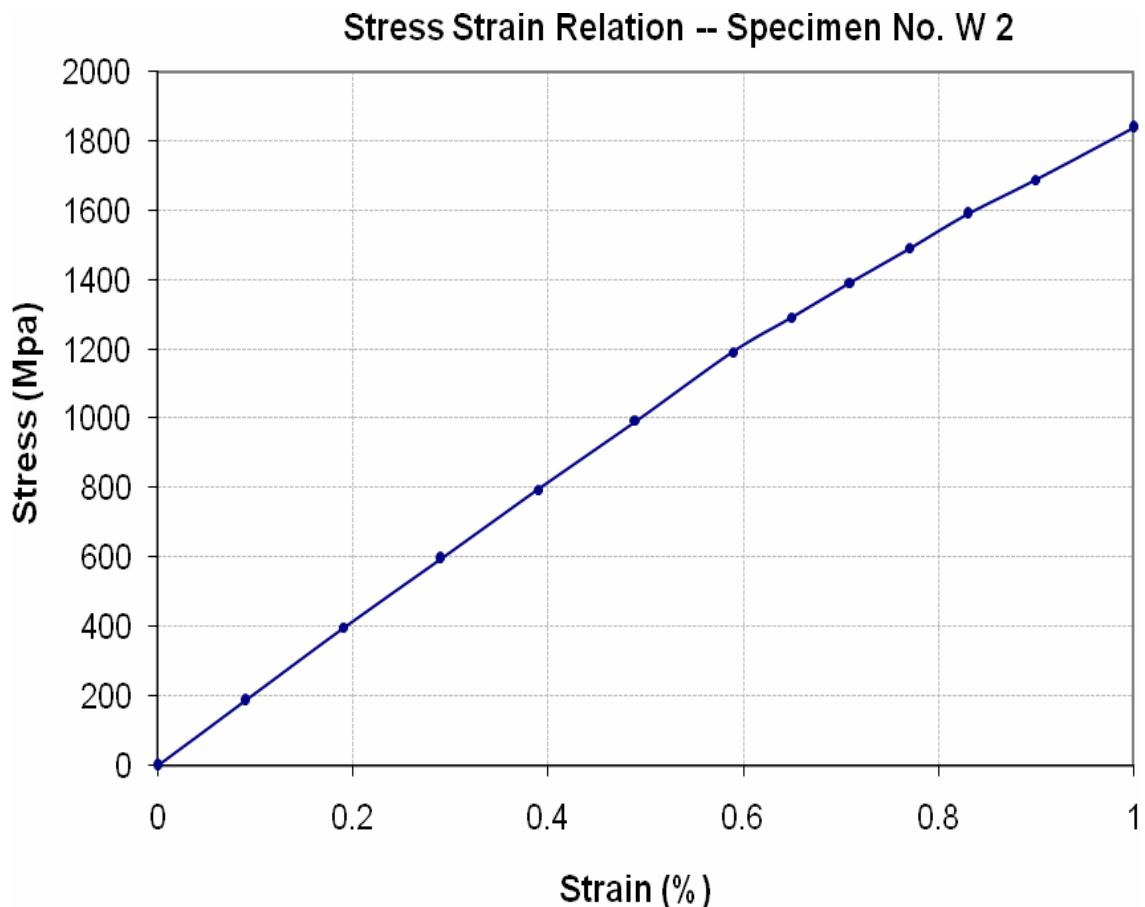
**STRUCTURAL ENGINEERING DIVISION**  
**Test Floor Laboratory**  
**Department of Civil Engineering**  
**University of Engineering and Technology Lahore, 54890**  
**Pakistan. Ph: 92-42-99029202**

To,  
Sub Divisional Officer  
Highway Sub Division D.G. Khan  
(Construction of Pile Foundation Bridge at Basti Gajjuji & Tigyani at D.G. Khan)

Reference # CED/TFL **37616** (Dr. Usman Akmal)  
Reference of the request letter # 2455

Dated: 29-12-2021  
Dated: 23-10-2021

**Graph** (Page – 3/4)



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

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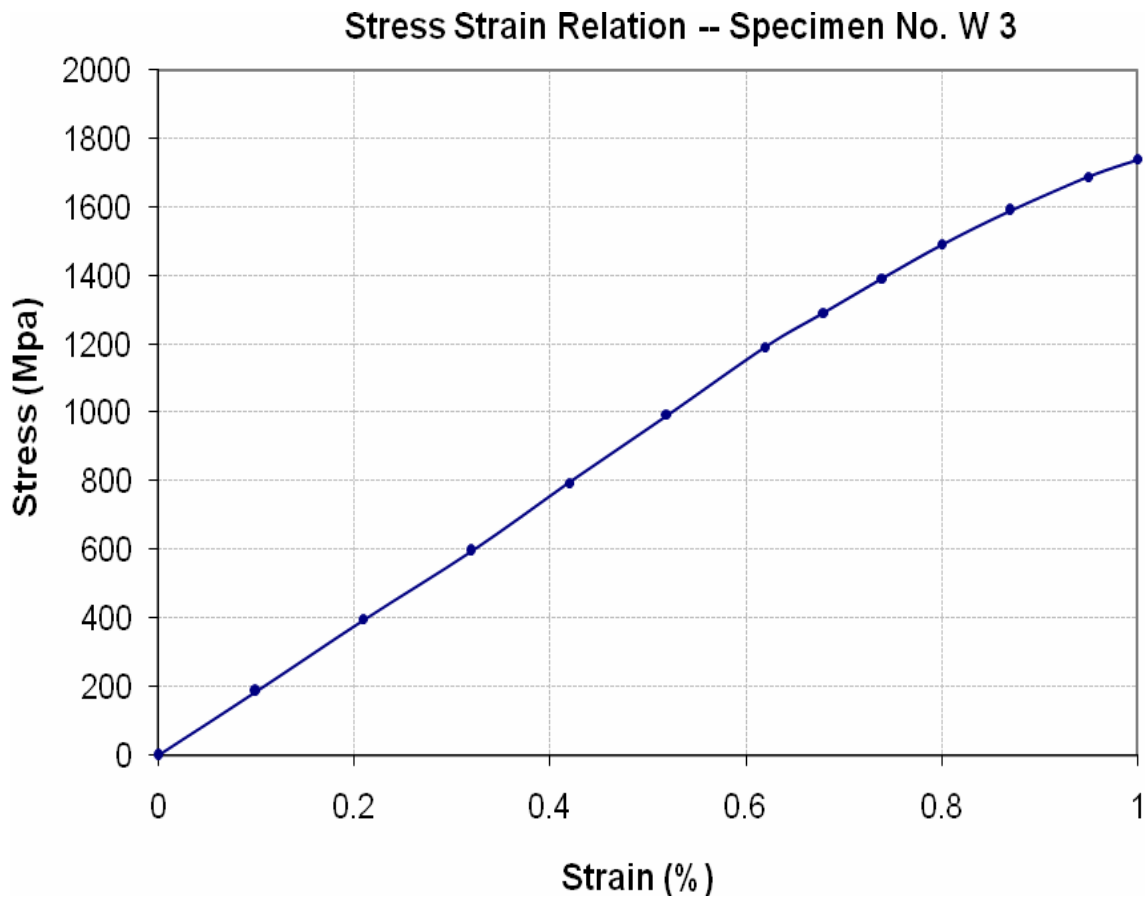
**STRUCTURAL ENGINEERING DIVISION**  
**Test Floor Laboratory**  
**Department of Civil Engineering**  
**University of Engineering and Technology Lahore, 54890**  
**Pakistan. Ph: 92-42-99029202**

To,  
Sub Divisional Officer  
Highway Sub Division D.G. Khan  
(Construction of Pile Foundation Bridge at Basti Gajjuji & Tigyani at D.G. Khan)

Reference # CED/TFL **37616** (Dr. Usman Akmal)  
Reference of the request letter # 2455

Dated: 29-12-2021  
Dated: 23-10-2021

**Graph** (Page – 4/4)



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

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

To,  
 Project Manager  
 Premier Developers & Builders  
 Lyallpur Galleria-II Near Four Season Colony Samundai Road, Faisalabad

Reference # CED/TFL **37619** (Dr. M Rizwan Riaz)  
 Reference of the request letter # LG-II/02

Dated: 29-12-2021  
 Dated: 27-12-2021

**Tension Test Report** (Page -1/2)

Date of Test 30-12-2021  
 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	0.351	3	0.363	0.11	0.103	2300	2900	46100	49100	58200	61900	2.10	26.3	SJ Steel
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<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.**

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



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

To,  
 Project Manager  
 Premier Developers & Builders  
 Lyallpur Galleria-II Near Four Season Colony Samundai Road, Faisalabad

Reference # CED/TFL **37619** (Dr. M Rizwan Riaz)  
 Reference of the request letter # LG-II/03

Dated: 29-12-2021  
 Dated: 27-12-2021

**Tension Test Report** (Page -2/2)

Date of Test 30-12-2021  
 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	0.374	3	0.374	0.11	0.110	3600	4700	72200	72220	94200	94300	1.20	15.0	FF Steel
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<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.**

Note:

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

To,  
Building Research Station  
Lahore  
(Koh-e-Noor Steel)

Reference # CED/TFL **37621** (Dr. M Rizwan Riaz)  
Reference of the request letter # 154-R/3849

Dated: 29-12-2021  
Dated: 28-12-2021

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

Date of Test 30-12-2021  
Description Deformed Steel Bar Bend Test as per ASTM-A615

Bend Test
#3 Bar Bend Test Through 180° is Satisfactory (G-40)
#3 Bar Bend Test Through 180° is Satisfactory (G-60)
<b>Note: only two samples for bend test</b>

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

**Note:**

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2. The above results pertain to sample /samples supplied to this laboratory.
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**STRUCTURAL ENGINEERING DIVISION**  
**Test Floor Laboratory**  
**Department of Civil Engineering**  
**University of Engineering and Technology Lahore, 54890**  
**Pakistan. Ph: 92-42-99029202**

To,  
M/S Meher Sons  
Lahore

Reference # CED/TFL 37622, 624 (Dr. Asad Ullah Qazi)  
Reference of the request letter # M.S/786/21

Dated: 30-12-2021  
Dated: 29-12-2021

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

Date of Test 30-12-2021  
Gauge length 8 inches  
Description Deformed Steel Bar Tensile Test

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	0.257	1/4	0.310	-----	0.076	2300	2800	-----	67120	-----	81700	1.60	20.0	
2	0.257	1/4	0.310	-----	0.075	2300	2800	-----	67190	-----	81800	1.50	18.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile test</b>														
Bend Test														

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

Note:

- 1- You can See your reports On Internet in the following web site  
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**STRUCTURAL ENGINEERING DIVISION**  
**Test Floor Laboratory**  
**Department of Civil Engineering**  
**University of Engineering and Technology Lahore, 54890**  
**Pakistan. Ph: 92-42-99029202**

To,  
 Project Manager  
 Dupak Properties (Pvt) Ltd  
 Defence view Apartments at Shanghai Road Lahore

Reference # CED/TFL **37623** (Dr. Asad Ullah Qazi)  
 Reference of the request letter # Dupak/DVA/057

Dated: 30-12-2021  
 Dated: 29-12-2021

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

Date of Test 30-12-2021  
 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	0.390	3	0.382	0.11	0.115	3800	5100	76200	73020	102200	98000	1.40	17.5	
2	0.389	3	0.381	0.11	0.114	3800	5100	76200	73300	102200	98400	1.30	16.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<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 Laboratories**  
**UET Lahore, Pakistan.**

Note:

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**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  
 Orbit Housing  
 The Spring Apartment Homes

Reference # CED/TFL **37626** (Dr. Asif Hameed)  
 Reference of the request letter # Nil

Dated: 30-12-2021  
 Dated: 30-12-2021

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

Date of Test 30-12-2021  
 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	0.375	3	0.374	0.11	0.110	3200	4800	64200	64030	96200	96100	1.40	17.5	
2	0.376	3	0.375	0.11	0.110	3300	4900	66200	65900	98200	97900	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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**STRUCTURAL ENGINEERING DIVISION**  
**Test Floor Laboratory**  
**Department of Civil Engineering**  
**University of Engineering and Technology Lahore, 54890**  
**Pakistan. Ph: 92-42-99029202**

To,  
 Assistant Project Director  
 PMU-SBP (North), Rawalpindi  
 Rehabilitation & Augment of Sport Complex at Rawalpindi Road, Chakwal (GS # 560)

Reference # CED/TFL **37634** (Dr. M Rizwan Riaz) Dated: 30-12-2021  
 Reference of the request letter # APD/PMU/SBP/RWP/21/1381 Dated: 18-12-2021

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

Date of Test 30-12-2021  
 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	0.374	3/8	0.374	0.11	0.110	3900	5100	78200	78240	102200	102400	1.20	15.0	
2	0.376	3/8	0.375	0.11	0.110	4000	5100	80200	79850	102200	101800	1.20	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and one sample for bend test</b>														
<b>Bend Test</b>														
3/8" Dia Bar Bend Test Through 180° is Satisfactory														

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

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