



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

To,

Kashif Maqbool
Plot No. 48
DHA Ph-12, EME, Lahore

Reference # CED/TFL **4155** (Dr. M Rizwan Riaz)
Reference of the request letter # Nil

Dated: 03-11-2023
Dated: 03-11-2023

Tension Test Report (Page -1/1)

Date of Test 06-11-2023
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 ²)		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	0.380	3	0.377	0.11	0.112	3500	5200	70200	69080	104200	102700	1.00	12.5	
-	0.383	3	0.379	0.11	0.113	3500	5200	70200	68520	104200	101900	1.20	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

- 1- You can See your reports On Internet in the following web site
http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing_reports
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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,
Mubashir
495-A
EME, Lahore

Reference # CED/TFL **4156** (Dr. M Rizwan Riaz)
Reference of the request letter # Nil

Dated: 03-11-2023
Dated: 03-11-2023

Tension Test Report (Page -1/1)

Date of Test 06-11-2023
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 ²)		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	0.372	3	0.373	0.11	0.109	3700	5100	74200	74530	102200	102800	1.30	16.3	
-	0.373	3	0.373	0.11	0.110	3700	5000	74200	74440	100200	100600	1.10	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
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,

Resident Engineer
NESPAK

Infrastructure Development of Quaid-E-Azam Business Park on Motorway M-2, District Sheikhupura.

Reference # CED/TFL **4157** (Dr. MRizwan Riaz)
Reference of the request letter # 4163/11/ZA/04/612

Dated: 03-11-2023
Dated: 24-10-2023

Tension Test Report (Page -1/1)

Date of Test 07-11-2023
Gauge length 8 inches
Description Plain Steel Bar Tensile and Bend Test

Sr. No.	Weight (kg/m)	Diameter/ size		Area (mm ²)		Yield load (kg)	Breaking Load (kg)	Yield Stress (MPa) Actual	Ultimate Stress (MPa) Actual	Elongation (inch)	% Elongation	Remarks
		Nominal (mm)	Actual (mm)	Nominal	Actual							
1	9.572	43	39.40	-----	1219.4	54800	79000	441	636	1.80	22.5	
2	9.650	43	39.56	-----	1229.3	54400	79400	434	634	2.10	26.3	
-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test												
Bend Test												
43mm Dia 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 Resident Engineer
 ES Consultants (Pvt) Ltd
 Construction of Multi Story (High Rise) Commercial Building Complex at OPF Housing
 Scheme, Khayaban-e- Jinnah Raiwind Road, Lahore.

Reference # CED/TFL **4158** (Dr. M Rizwan Riaz)
 Reference of the request letter # ESC/OPF-ISL/6047

Dated: 03-11-2023
 Dated: 06-09-2023

Tension Test Report (Page -1/1)

Date of Test 07-11-2023
 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 ²)		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	4.305	10	1.269	1.27	1.266	40800	55200	70900	71060	95800	96200	1.60	20.0	
2	4.313	10	1.270	1.27	1.268	40400	54400	70200	70250	94500	94600	1.60	20.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
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

o,

Assistant Engineer (Civil)
 University of Engineering and Technology, Lahore
 Construction of Upper Floor of Existing Building of the Department of Computer
 Science, Main Campus, UET Lahore.

Reference # CED/TFL **4160** (Dr. Usman Akmal)
 Reference of the request letter # B&W/ECSCE/17

Dated: 06-11-2023
 Dated: 06-11-2023

Tension Test Report (Page -1/1)

Date of Test 07-11-2023
 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 ²)		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	3600	4900	72200	72100	98200	98200	1.20	15.0	
2	0.376	3	0.375	0.11	0.110	3700	4900	74200	73830	98200	97800	1.30	16.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
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,

Project Manager – Technical
Sitara Developers
Construction of Flyover at Sitara Green City, Faisalabad

Reference # CED/TFL **4161** (Dr. M Rizwan Riaz)
Reference of the request letter # SGC/Flyover/72

Dated: 06-11-2023
Dated: 04-11-2023

Tension Test Report (Page -1/4)

Date of Test 07-11-2023
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")	780.0	790.0	18100	177.56	19600	192.28	199	>3.50	24714
2	12.70 (1/2")	780.0	787.0	17600	172.66	19600	192.28	198	>3.50	24716
3	12.70 (1/2")	780.0	787.0	17900	175.60	19600	192.28	199	>3.50	24718
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
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.

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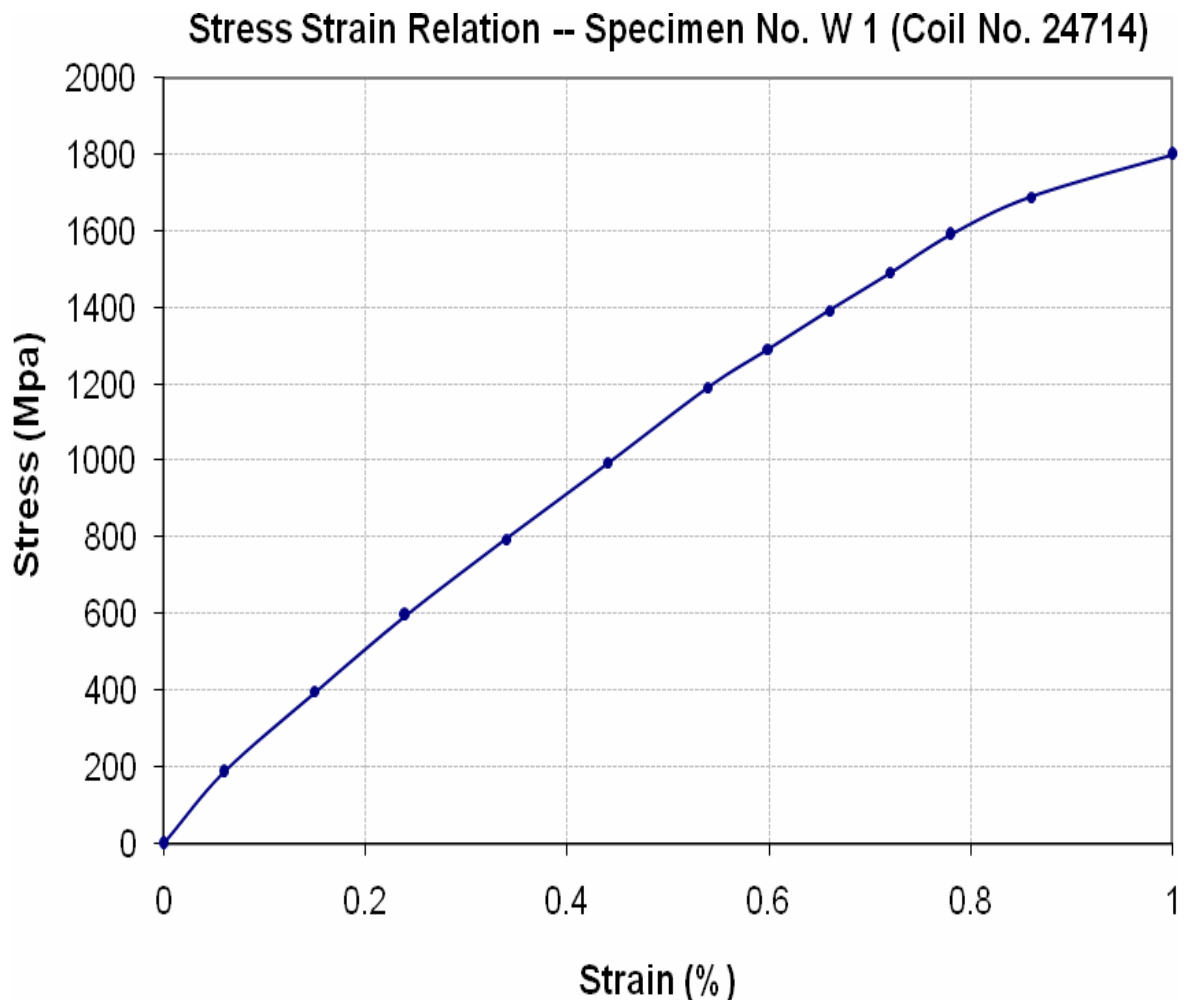
To,

Project Manager – Technical
Sitara Developers
Construction of Flyover at Sitara Green City, Faisalabad

Reference # CED/TFL **4161** (Dr. M Rizwan Riaz)
Reference of the request letter # SGC/Flyover/72

Dated: 06-11-2023
Dated: 04-11-2023

Graph (Page – 2/4)



I/C Testing Laboratoires
UET Lahore, Pakistan.

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Department of Civil Engineering
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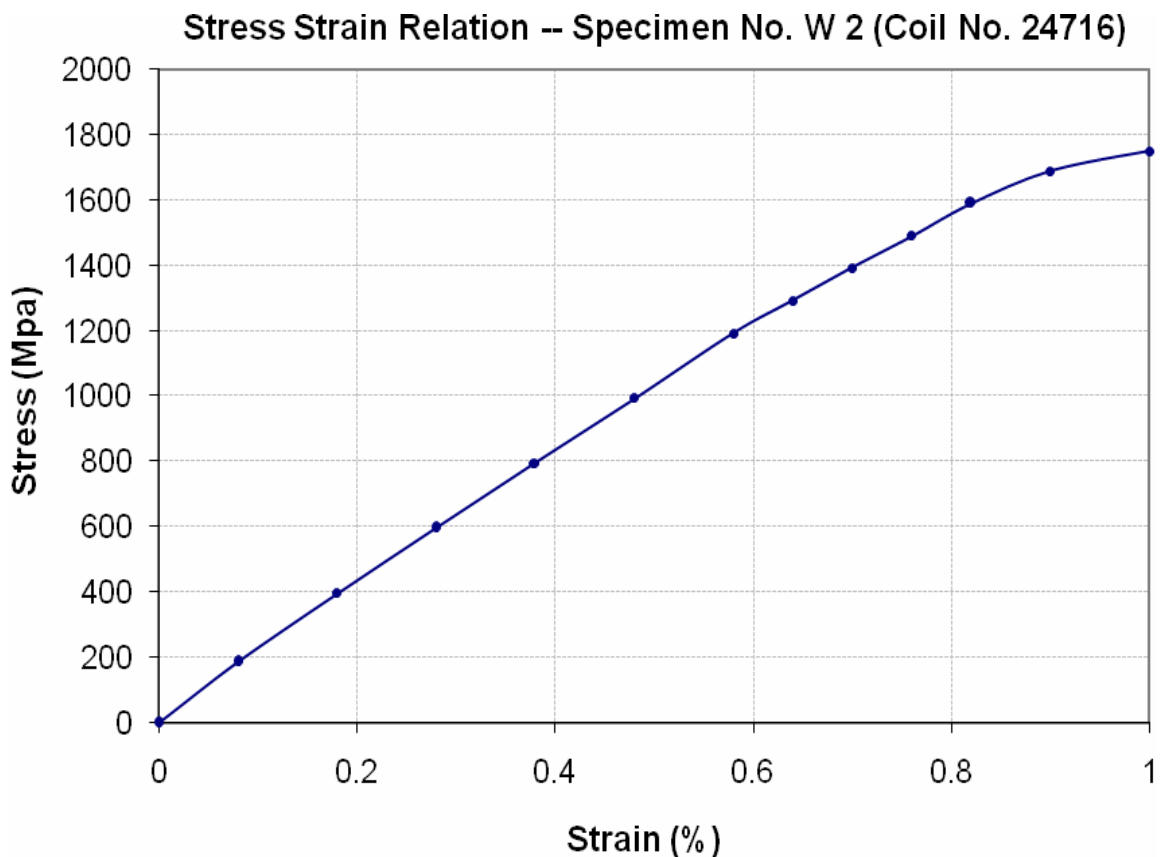
To,

Project Manager – Technical
Sitara Developers
Construction of Flyover at Sitara Green City, Faisalabad

Reference # CED/TFL **4161** (Dr. M Rizwan Riaz)
Reference of the request letter # SGC/Flyover/72

Dated: 06-11-2023
Dated: 04-11-2023

Graph (Page – 3/4)



I/C Testing Laboratories
UET Lahore, Pakistan.

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Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
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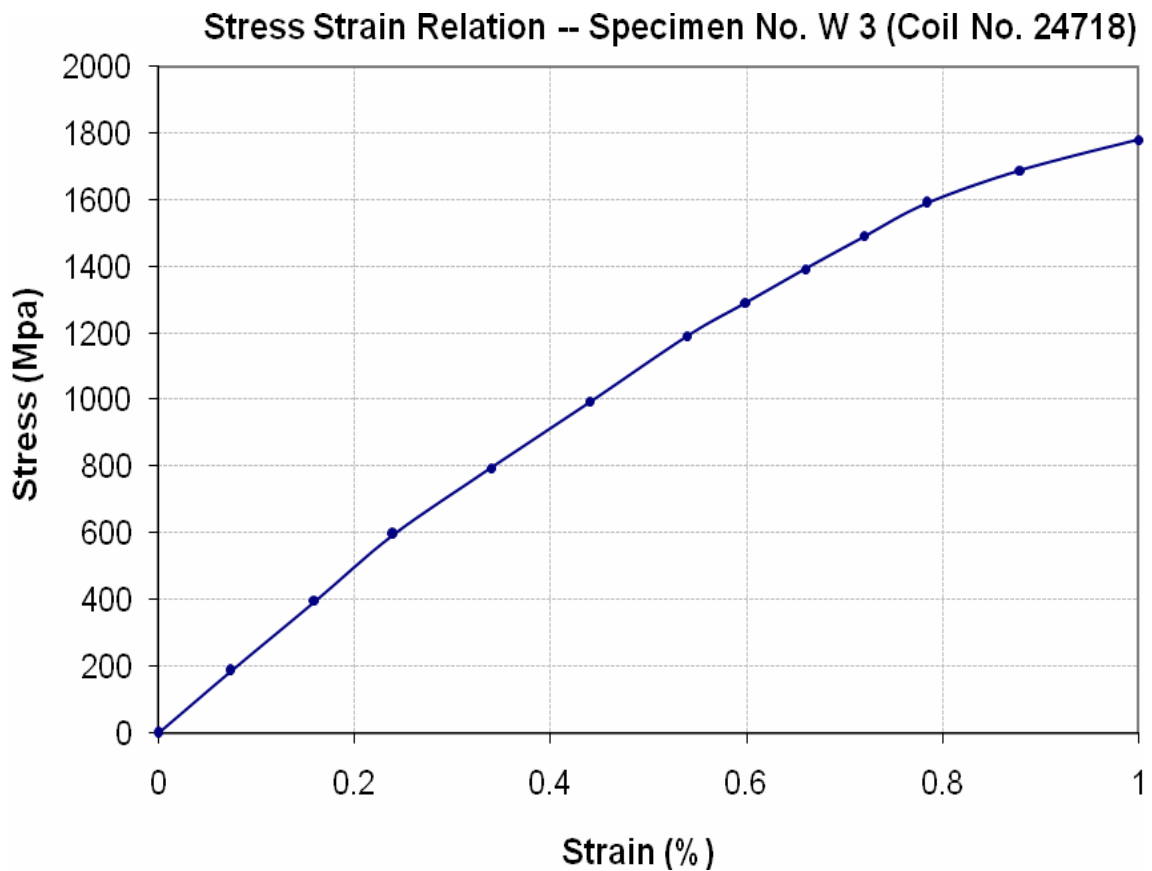
To,

Project Manager – Technical
Sitara Developers
Construction of Flyover at Sitara Green City, Faisalabad

Reference # CED/TFL **4161** (Dr. M Rizwan Riaz)
Reference of the request letter # SGC/Flyover/72

Dated: 06-11-2023
Dated: 04-11-2023

Graph (Page – 4/4)



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 – Technical
Sitara Developers
Construction of Flyover at Sitara Green City, Faisalabad

Reference # CED/TFL **4162** (Dr. M Rizwan Riaz)
Reference of the request letter # SGC/UIA/71

Dated: 06-11-2023
Dated: 04-11-2023

Tension Test Report (Page -1/1)

Date of Test 07-11-2023
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 ²)		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	4.147	32	31.64	1.25	1.219	37800	52600	66667	68350	92770	95200	1.50	18.8	
2	4.169	32	31.73	1.25	1.225	38800	52800	68431	69790	93122	95000	1.60	20.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
32mm Dia 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,

Co- Opted Member Building Sub Division
Government of Khyber Pakhtunkhwa
Project Directorate, Provincial Express ways
Pakhtunkhwa Highways Authority, Peshawar
Enlistment / Standardization of Engineering Products.

Reference # CED/TFL **4163** (Dr. Usman Akmal)
Reference of the request letter # 561/StdN/C&W

Dated: 06-11-2023
Dated: 23-10-2023

Tension Test Report (Page -1/1)

Date of Test 07-11-2023

Gauge length 8 inches

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

Sr. No.	Weight	Diameter/ Size		Area (in ²)		Yield load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
	(lbs/ft)	Nominal (#)	Actual (inch)	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)		
1	0.371	3	0.373	0.11	0.109	3200	5000	64200	64590	100200	101000	1.30	16.3	Amir Steel
2	0.373	3	0.374	0.11	0.110	3300	5000	66200	66290	100200	100500	1.30	16.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
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,
 Deputy Director (Maintenance)
 NHA Sahiwal

Reference # CED/TFL **4165** (Dr. Usman Akmal) Dated: 06-11-2023
 Reference of the request letter # AE-PS-2022-23-N5-01/DD(Maint)/SWL/PS/NHA/2023/1230
Dated: 05-10-2023

Tension Test Report (Page -1/1)

Date of Test 07-11-2023
 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 ²)		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	0.377	10	9.54	0.12	0.111	3300	4800	60627	65710	88184	95600	1.50	18.8	
2	0.392	10	9.73	0.12	0.115	3400	4900	62464	65030	90021	93800	1.30	16.3	
3	0.386	10	9.65	0.12	0.113	3400	4900	62464	66120	90021	95300	1.20	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Note: only three samples for tensile and one sample for bend test														
Bend Test														
10mm Dia 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
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To,

Material Engineer
NESPAK
Punjab Rural Sustainable Water Supply & Sanitation Project (PRSWSSP)
Engineering Design & Construction Supervision (EDCS)
Cluster Central –I, Tehsil Bhowana (Contract Package –BNA-01)

Reference # CED/TFL **4166** (Dr. Usman Akmal)

Dated: 06-11-2023

Reference of the request letter # NESPAK (PRSWSSP) BHOWANA –RE-26 Dated: 01-11-2023

Tension Test Report (Page -1/1)

Date of Test 07-11-2023

Gauge length 8 inches

Description Deformed Steel Bar Tensile and Bend Test as per ASTM A-496

Sr. No.	Weight (kg/m)	Diameter/ Size (mm)		Area (mm ²)		Yield load (kg)	Breaking Load (kg)	Yield Stress (Mpa)		Ultimate Stress (Mpa)		Elongation (inch)	% Elongation	Remarks
		Nominal	Actual	Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.241	6	6.26	32.30	30.75	1700	1980	516	542	601	632	1.00	12.5	
2	0.247	6	6.33	32.30	31.45	1740	1940	528	543	589	605	0.80	10.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
6mm Dia Bar Bend Test Through 180° is Satisfactory														

I/C Testing Laboratories
UET Lahore, Pakistan.

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