



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

To,
Material Engineer I
Jv-Min-CEC
Khyber Pakhtunkhwa Provincial Roads Improvement Project (KP-PRIP) (ADB Assisted) (Lot No. 2, Package # I : Umerzai to Harichand – Shergarh Section km 0 + 000 – 29 + 050.) (M/s Khattak Allied Construction Co.)
Reference # CED/TFL **36002** (Dr. M Rizwan Riaz) Dated: 28-01-2021
Reference of the request letter # Jv Min-CEC/PRIP/ME-01/2020/072 Dated: 25-01-2021

Tension Test Report (Page – 1/3)

Date of Test 29-01-2021
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	785.0	18000	176.58	20200	198.16	198	>3.50	xx
2	12.70 (1/2")	775.0	782.0	18000	176.58	20200	198.16	199	>3.50	xx
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
Only two 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:

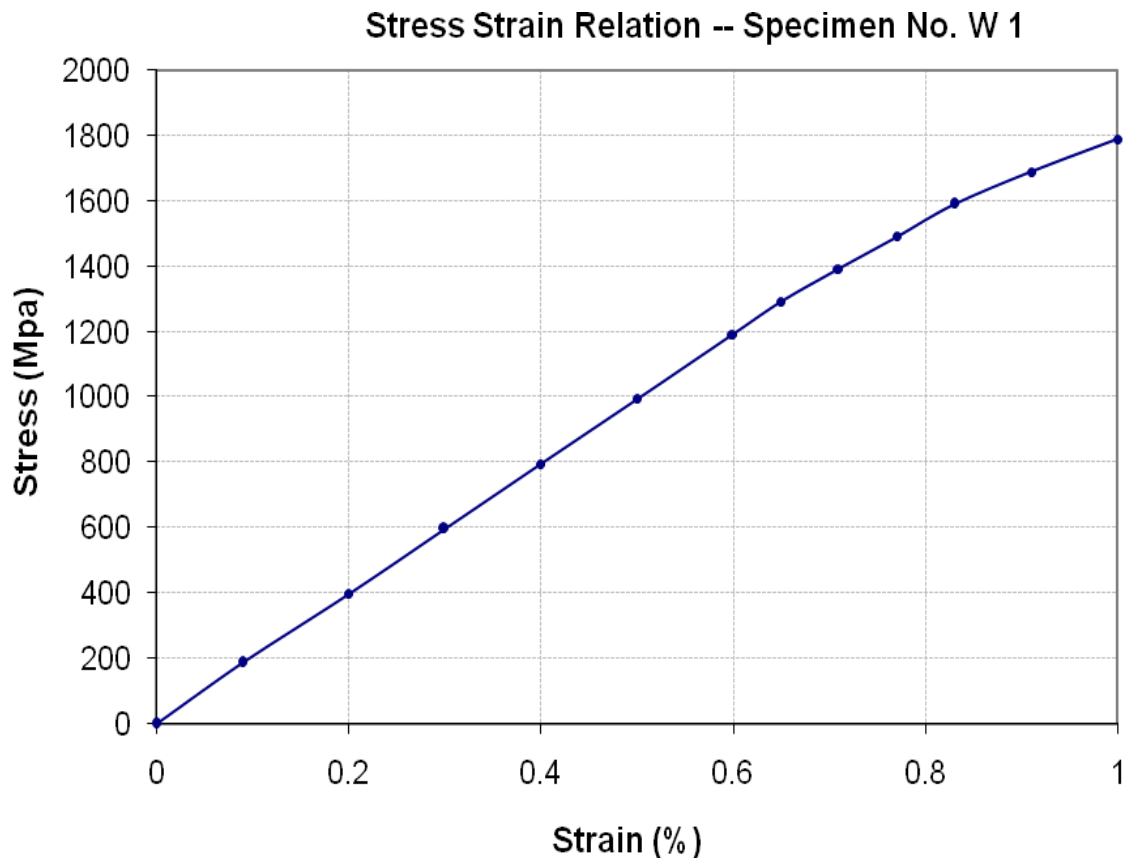
- 1- You can See your reports On Internet in the following web site
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Khyber Pakhtunkhwa Provincial Roads Improvement Project (KP-PRIP) (ADB Assisted) (Lot
No. 2, Package # I : Umerzai to Harichand – Shergarh Section km 0 + 000 – 29 + 050.)
(M/s Khattak Allied Construction Co.)
Reference # CED/TFL **36002** (Dr. M Rizwan Riaz) Dated: 28-01-2021
Reference of the request letter # Jv Min-CEC/PRIP/ME-01/2020/072 Dated: 25-01-2021

Graph (Page – 2/3)



I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

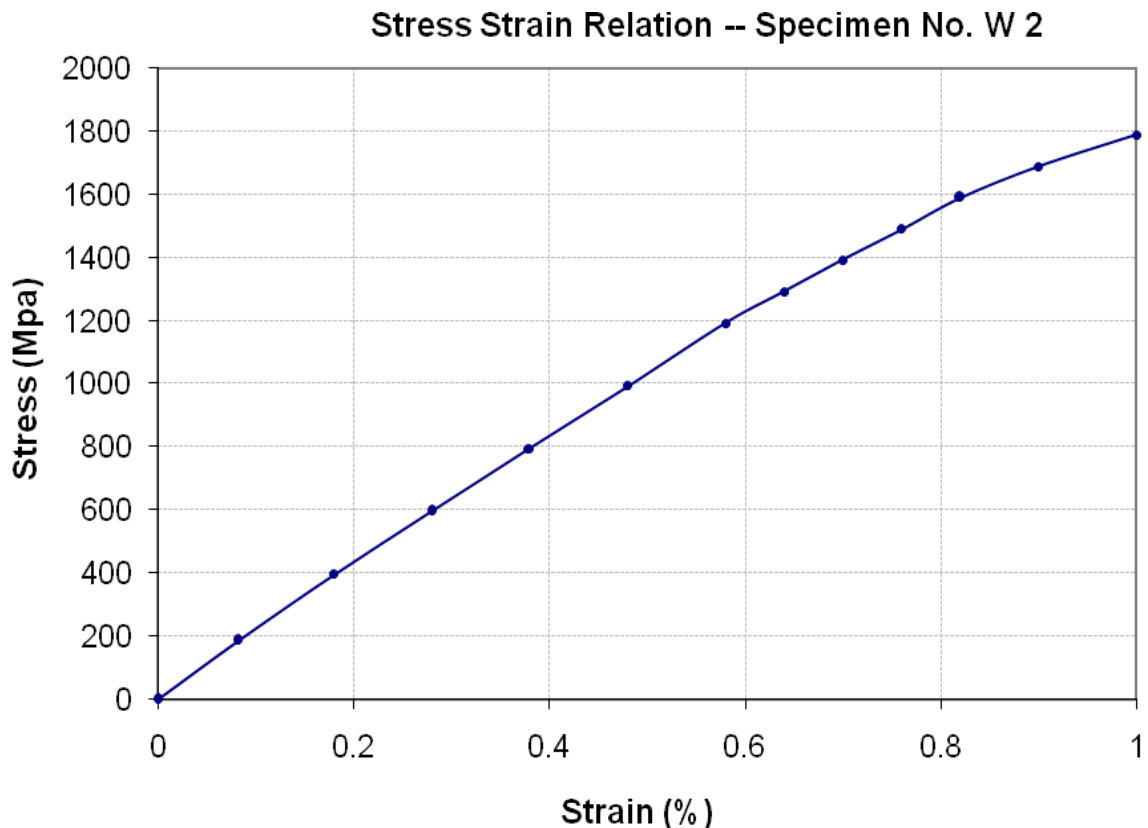
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Graph (Page – 3/3)



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UET Lahore, Pakistan.

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To,
Material Engineer I
Jv-Min-CEC
Khyber Pakhtunkhwa Provincial Roads Improvement Project (KP-PRIP) (ADB Assisted
Package-I Lot No. 1 : Shah Alam - Sadaryab Road Section (11.8-km)
(M/s Nasrullah Jan, Inamullah Khan & Co.)
Reference # CED/TFL **36003** (Dr. M Rizwan Riaz) Dated: 28-01-2021
Reference of the request letter # Jv Min-CEC/PRIP/ME-01/2020/061 Dated: 24-12-2020

Tension Test Report (Page – 1/3)

Date of Test 29-01-2021
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	785	18000	176.58	2010	19.72	199	>3.50	xx
2	12.70 (1/2")	775.0	787	18000	176.58	20200	198.16	199	>3.50	xx
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
Only two 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:

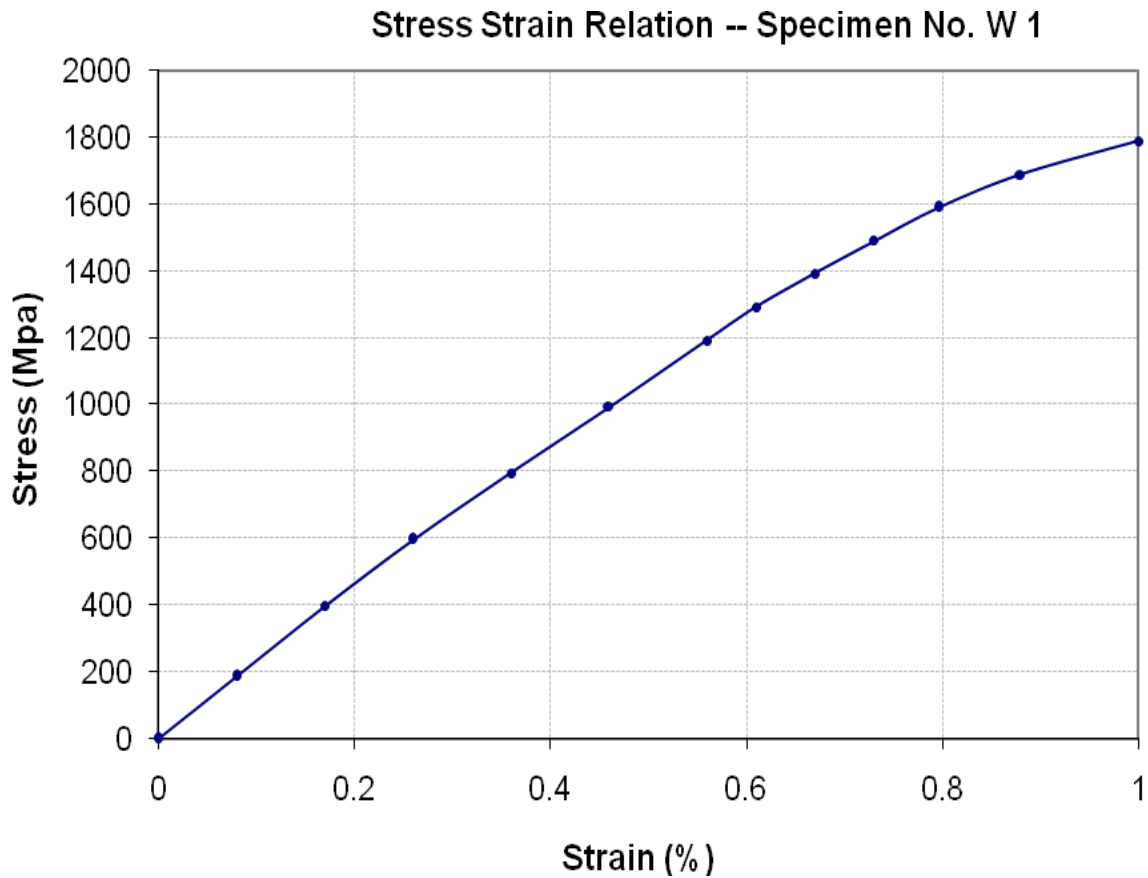
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Khyber Pakhtunkhwa Provincial Roads Improvement Project (KP-PRIP) (ADB Assisted
Package-I Lot No. 1 : Shah Alam - Sadaryab Road Section (11.8-km)
(M/s Nasrullah Jan, Inamullah Khan & Co.)
Reference # CED/TFL **36003** (Dr. M Rizwan Riaz) Dated: 28-01-2021
Reference of the request letter # Jv Min-CEC/PRIP/ME-01/2020/061 Dated: 24-12-2020

Graph (Page – 2/3)



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Note:

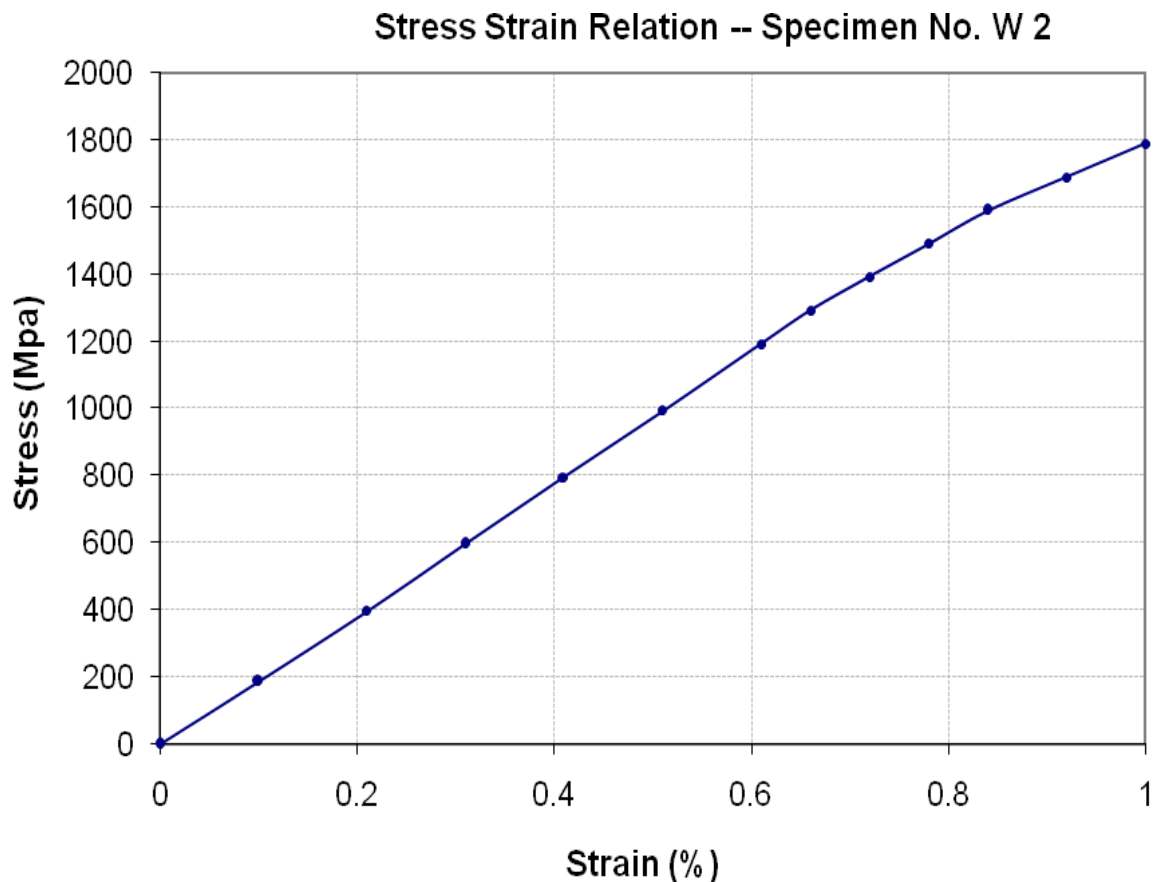
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Package-I Lot No. 1 : Shah Alam - Sadaryab Road Section (11.8-km)
(M/s Nasrullah Jan, Inamullah Khan & Co.)
Reference # CED/TFL **36003** (Dr. M Rizwan Riaz) Dated: 28-01-2021
Reference of the request letter # Jv Min-CEC/PRIP/ME-01/2020/061 Dated: 24-12-2020

Graph (Page – 3/3)



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To,
 Resident Engineer
 NESPAK
 Development of Infrastructure in LDA City, Lahore (Package 2 of Development Area - 1)

Reference # CED/TFL **36004** (Dr. M Rizwan Riaz)
 Reference of the request letter # 4047/13/OH/04-KRC/125

Dated: 28-01-2021
 Dated: 01-01-2021

Tension Test Report (Page -1/1)

Date of Test 29-01-2021
 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 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	0.381	3	0.377	0.11	0.112	3600	5400	72200	70940	108200	106400	1.40	17.5	SJ Steel
2	0.382	3	0.378	0.11	0.112	3600	5300	72200	70590	106200	104000	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:

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To,
 Project Manager
 Maypole Lime (Printing Mill)

Reference # CED/TFL **36006** (Dr. M Rizwan Riaz)
 Reference of the request letter # MLL-19

Dated: 28-01-2021
 Dated: 28-01-2021

Tension Test Report (Page -1/1)

Date of Test 29-01-2021
 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 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	3200	4800	64200	64170	96200	96300	1.20	15.0	
2	0.374	3	0.374	0.11	0.110	3200	4900	64200	64170	98200	98300	1.40	17.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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 Laboratories
UET Lahore, Pakistan.

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To,
M/S Shahid Builders (Pvt) Ltd
Lahore
(Construction of Labard Rehabilitation & Vocational Training Centre, Harbanspura, Lahore)

Reference # CED/TFL **36008** (Dr. M Rizwan Riaz)
Reference of the request letter # SBL/2021/2

Dated: 28-01-2021
Dated: 28-01-2021

Tension Test Report (Page -1/1)

Date of Test 29-01-2021
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 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	0.363	3	0.369	0.11	0.107	3700	5000	74200	76390	100200	103300	1.00	12.5	
2	0.366	3	0.370	0.11	0.108	3600	5000	72200	73740	100200	102500	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.

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To,
M/S SA-RA Group
Lahore
(Procurement of Plant, Design, Supply, Installation, Testing and Commission of 220 kV Double
Circuit Transmission Line on Rail Conductor from D.I Khan to Zhob)(Approx. 220km)

Reference # CED/TFL **36009** (Dr. M Rizwan Riaz)
Reference of the request letter # MIG/2021/71

Dated: 28-01-2021
Dated: 27-01-2021

Tension Test Report (Page -1/2)

Date of Test 29-01-2021
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 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	0.376	3	0.375	0.11	0.110	3300	4600	66200	65870	92200	91900	1.20	15.0	SJ Steel
2	0.384	3	0.379	0.11	0.113	3400	4600	68200	66340	92200	89800	1.40	17.5	
3	0.381	3	0.378	0.11	0.112	3600	4800	72200	70790	96200	94400	1.10	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only three samples for tensile and three samples for bend test														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														
#3 Bar Bend Test Through 180° is Satisfactory														
#3 Bar Bend Test Through 180° is Satisfactory														

Witness by Sohaib Ali (Sub-Engineer NESPAK)

I/C Testing Laboratoires
UET Lahore, Pakistan.

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To,
M/S SA-RA Group
Lahore
(Procurement of Plant, Design, Supply, Installation, Testing and Commission of 220 kV Double
Circuit Transmission Line on Rail Conductor from D.I Khan to Zhob)(Approx. 220km)

Reference # CED/TFL **36009** (Dr. M Rizwan Riaz)
Reference of the request letter # MIG/2021/72

Dated: 28-01-2021
Dated: 27-01-2021

Tension Test Report (Page -2/2)

Date of Test 29-01-2021
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 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	0.498	3	0.432	0.11	0.146	4100	5900	82200	61750	118300	88900	1.60	20.0	Batala Steel
2	0.496	3	0.431	0.11	0.146	4100	5900	82200	61990	118300	89200	1.50	18.8	
3	0.498	3	0.432	0.11	0.146	4000	5700	80200	60210	114300	85800	1.40	17.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only three samples for tensile and three samples for bend test														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														
#3 Bar Bend Test Through 180° is Satisfactory														
#3 Bar Bend Test Through 180° is Satisfactory														

Witness by Sohaib Ali (Sub-Engineer NESPAK)

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STRUCTURAL ENGINEERING DIVISION
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To,
 Resident Engineer
 Engineering Consultancy Services Punjab (Pvt.) Ltd.
 Supply, Construction, Installation of Conventional Treatment Plant in Chak Jhumrah

Reference # CED/TFL **36012** (Dr. M Rizwan Riaz)
 Reference of the request letter # ECSP/PAPA/CZ-CJ-2

Dated: 28-01-2021
 Dated: 13-01-2021

Tension Test Report (Page -1/1)

Date of Test 29-01-2021
 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 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	0.374	10	9.50	0.12	0.110	3500	4900	64301	70140	90021	98200	0.80	10.0	
2	0.385	10	9.64	0.12	0.113	4100	5700	75324	79930	104719	111200	0.90	11.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two 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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To,
M/S Madina Hardware & Co.
Lahore
(Dolman Mold)

Reference # CED/TFL **36013** (Dr. M Rizwan Riaz)
Reference of the request letter # Nil

Dated: 29-11-2021
Dated: 29-01-2021

Tension Test Report (Page -1/1)

Date of Test 29-01-2021
Gauge length 8 inches
Description Plain Steel Bar Tensile 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	9.048	38	38.31	-----	1152.6	84000	108400	715	923	1.20	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	
Note: only one sample for tensile test												
Bend Test												

I/C Testing Laboratories
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