



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
Velosi Integrity & Safety Pakistan (Pvt) Ltd.
Detailed Design and Resident Supervision of Regional Campus for Allama Iqbal Open
University Located at Sargodha.

Reference # CED/TFL **3013** (Dr. Usman Akmal)

Dated: 29-03-2023

Reference of the request letter # VISP-RC-SRG-03

Dated: 27-03-2023

Tension Test Report (Page -1/1)

Date of Test 30-03-2023

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	0.362	3	0.368	0.11	0.106	3200	5000	64200	66250	100200	103600	1.00	12.5	Ittehad Steel
2	0.368	3	0.371	0.11	0.108	3300	5000	66200	67300	100200	102000	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
- 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,

QA/QC Manager
Power Construction Corporation of China Ltd
Tarbela 5th Extension Hydropower Project Management Department
(Wire Manufacture Industry Limited)

Reference # CED/TFL **3016** (Dr. Ali Ahmed)
Reference of the request letter # PCCCL/T5-QC-2023-010

Dated: 30-03-2023
Dated: 28-03-2023

Tension Test Report (Page – 1/2)

Date of Test 30-03-2023
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	% Elongation	Remarks / Coil No.
	(mm)	(kg/km)	(kg/km)	(kg)	(kN)	(kg)	(kN)	E, GPa		
1	15.24 (0.6")	1102.0	1110.0	24700	242.31	27400	268.79	199	>3.50	xx
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
Only one sample for Test										

Witness by Shafiq Islam (QC-Coordinator PCCCL – T5) and Yasir (T5C)

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
http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing_reports
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

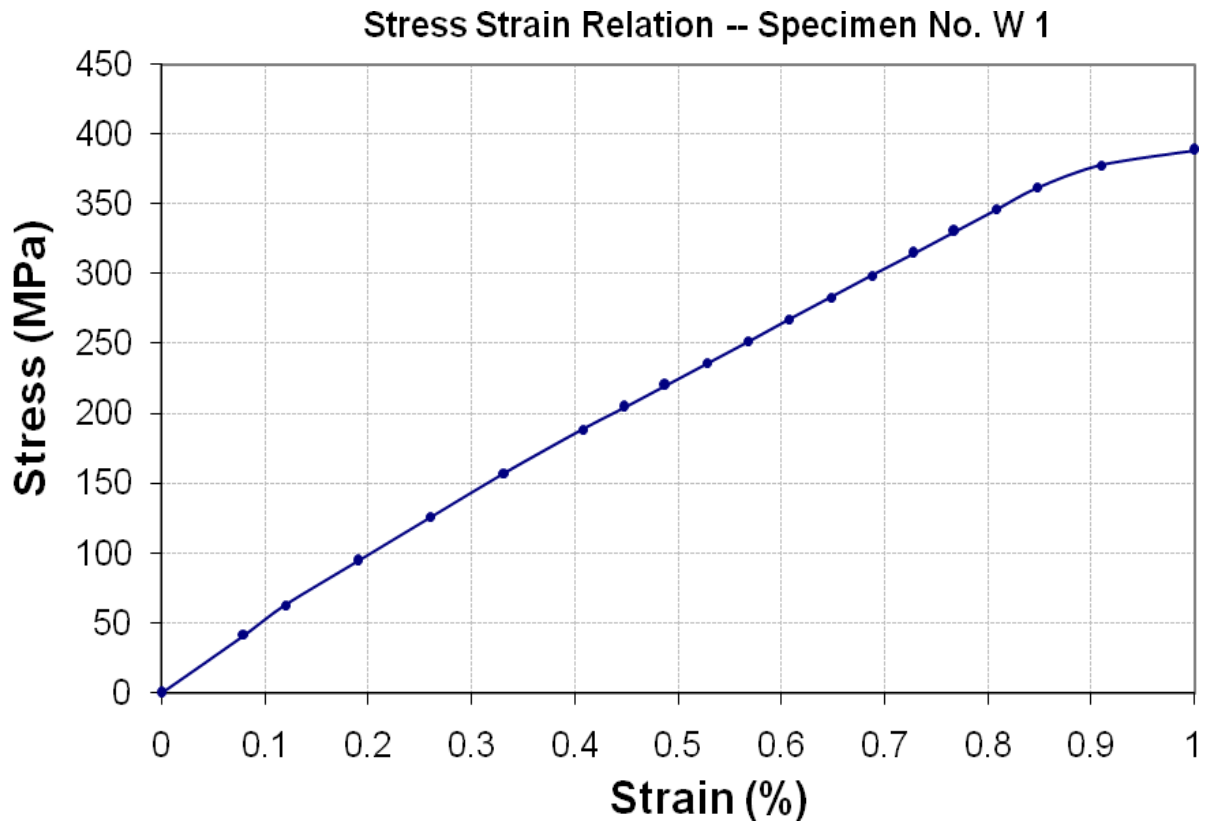
To,

QA/QC Manager
Power Construction Corporation of China Ltd
Tarbela 5th Extension Hydropower Project Management Department
(Wire Manufacture Industry Limited)

Reference # CED/TFL **3016** (Dr. Ali Ahmed)
Reference of the request letter # PCCCL/T5-QC-2023-010

Dated: 30-03-2023
Dated: 28-03-2023

Graph (Page – 2/2)



I/C Testing Laboratories
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
- 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,

QA/QC Manager
Power Construction Corporation of China Ltd
Tarbela 5th Extension Hydropower Project Management Department
(United Wire Industries Ltd.)

Reference # CED/TFL **3017** (Dr. Ali Ahmed)
Reference of the request letter # PCCCL/T5-QC-2023-009

Dated: 30-03-2023
Dated: 28-03-2023

Tension Test Report (Page – 1/2)

Date of Test 30-03-2023
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	% Elongation	Remarks / Coil No.
	(mm)	(kg/km)	(kg/km)	(kg)	(kN)	(kg)	(kN)	E, GPa		
1	15.24 (0.6")	1102.0	1106.0	23000	225.63	26700	261.93	199	>3.50	xx
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
Only one sample for Test										

Witness by Shafiq Islam (QC-Coordinator PCCCL – T5) and Yasir (T5C)

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
http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing_reports
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,

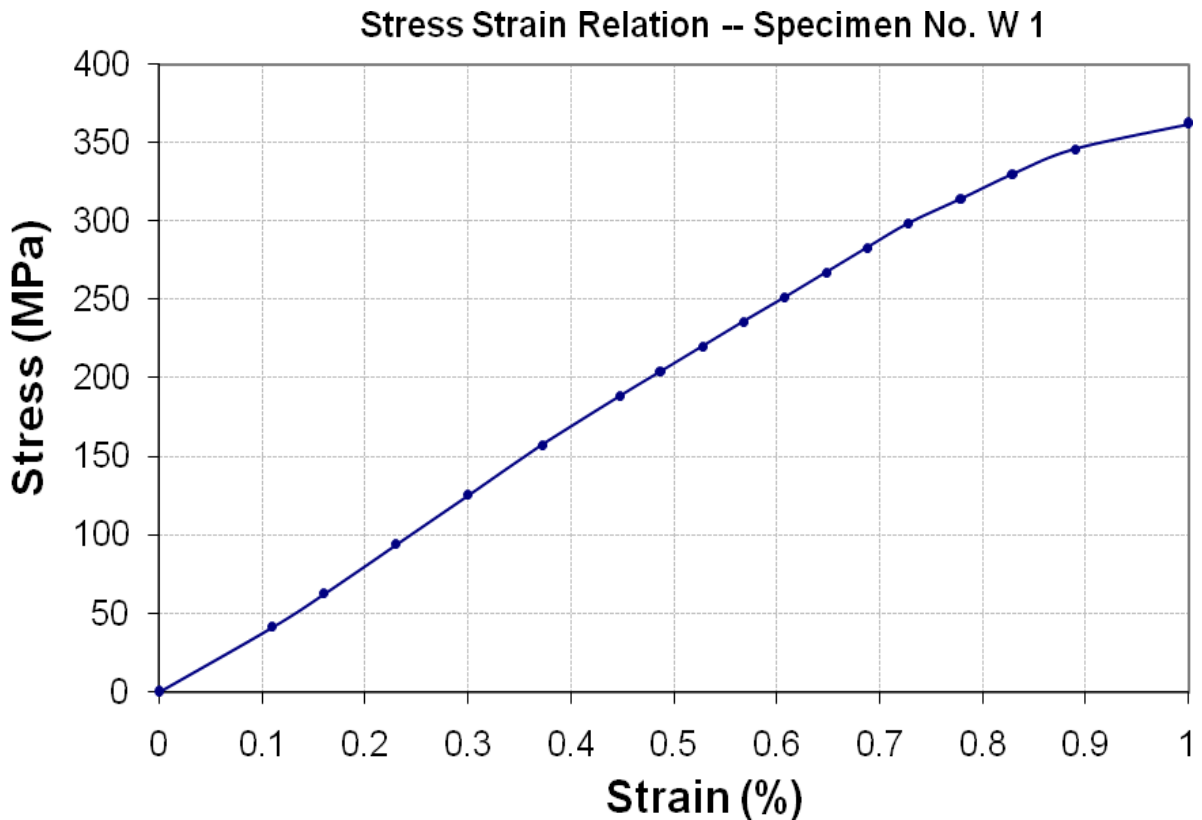
QA/QC Manager
Power Construction Corporation of China Ltd
Tarbela 5th Extension Hydropower Project Management Department
(United Wire Industries Ltd.)

Reference # CED/TFL **3017** (Dr. Ali Ahmed)
Reference of the request letter # PCCCL/T5-QC-2023-009

Dated: 30-03-2023

Dated: 28-03-2023

Graph (Page – 2/2)



I/C Testing Laboratories
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
- 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,

Resident Engineer
 ACE Architectural & Town Planning Services Limited, Sambrial Sialkot
 Establishment of University of Applied Engineering and Emerging Technologies
 (UAEET) Sambrial, Sialkot

Reference # CED/TFL **3021** (Dr. Rizwan Azam)

Dated: 30-03-2023

Reference of the request letter # ER/UAEET/ACE/2023/215

Dated: 30-03-2023

Tension Test Report (Page -1/2)

Date of Test 30-03-2023

Gauge length 8 inches

Description Deformed Steel Bar Tensile and Bend Test 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	0.366	3	0.370	0.11	0.107	3500	4700	70200	71770	94200	96400	1.20	15.0	FF Steel Heat No. 1105, 1106, 1107
2	0.369	3	0.372	0.11	0.109	3500	4700	70200	71050	94200	95500	1.50	18.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

Witness by Zahid Iqbal (Site Inspector ACE)

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
- 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,

Resident Engineer
 ACE Architectural & Town Planning Services Limited, Sambrial Sialkot
 Establishment of University of Applied Engineering and Emerging Technologies
 (UAEET) Sambrial, Sialkot

Reference # CED/TFL **3021** (Dr. Rizwan Azam)
 Reference of the request letter # ER/UAEET/ACE/2023/216

Dated: 30-03-2023
 Dated: 30-03-2023

Tension Test Report (Page -2/2)

Date of Test 30-03-2023
 Gauge length 8 inches
 Description Deformed Steel Bar Tensile and Bend Test 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	0.370	3	0.372	0.11	0.109	3500	4800	70200	70950	96200	97300	1.30	16.3	FF Steel Heat No. 325
2	0.368	3	0.371	0.11	0.108	3500	4700	70200	71260	94200	95700	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														

Witness by Zahid Iqbal (Site Inspector ACE)

I/C Testing Laboratoires
 UET Lahore, Pakistan.

Note:

- 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
- The above results pertain to sample /samples supplied to this laboratory.
- 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,

Engr. Muhammad Ali Murtaza
 Construction of International School, Pine Avenue, Lahore

Reference # CED/TFL **3022** (Dr. Rizwan Azam)
 Reference of the request letter # Nil

Dated: 30-03-2023
 Dated: 30-03-2023

Tension Test Report (Page -1/1)

Date of Test 30-03-2023
 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	0.385	3	0.380	0.11	0.113	3700	5700	74200	71990	114300	110900	1.00	12.5	Malik Steel
2	0.372	3	0.373	0.11	0.109	3300	5400	66200	66480	108200	108800	1.00	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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 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
- 2- The above results pertain to sample /samples supplied to this laboratory.
- 3- Sealed sample / Unsealed sample / Marked sample/Signed Samples