



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

To,
Assistant Engineer
Buildings
City-II (Jalal Abad), Sub Division Muzaffarabad
(Water Supply Scheme Doba Hutaridy and Marian Kalian Muzaffarabad)

Reference # CED/TFL **32875** (Dr. M Rizwan Riaz)
Reference of the request letter # 716-18/2019

Dated: 19-03-2019
Dated: 18-03-2019

Tension Test Report (Page – 1/3)

Date of Test 01-04-2019
Gauge length 2 inches
Description G.I Pipe 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
	(inch)	(mm)	(mm ²)	(kg)	(kg)	(MPa)	(MPa)	(in)		
1	1	27.00x3.00	81.00	2700	3600	327.00	436.00	0.40	20.00	
2	1	27.00x3.00	81.00	2700	3600	327.00	436.00	0.40	20.00	
3	1.5	27.00x3.10	83.70	2700	3500	316.45	410.22	0.40	20.00	
4	1.5	27.00x3.10	83.70	2800	3400	328.17	398.49	0.40	20.00	
5	2	27.00x3.40	91.80	3000	4300	320.59	459.51	0.35	17.50	
6	2	27.00x3.40	91.80	3500	4400	374.02	470.20	0.50	25.00	
Only Six Samples for Tensile and Three Samples for Bend Test										
Bend Test										
Strip Taken from G.I Pipe (1") Bend Test Through 180° is Satisfactory										
Strip Taken from G.I Pipe (1.5") Bend Test Through 180° is Satisfactory										
Strip Taken from G.I Pipe (2") 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,
Assistant Engineer
Buildings
City-II (Jalal Abad), Sub Division Muzaffarabad
(Water Supply Scheme Doba Hutaridy and Marian Kalian Muzaffarabad)

Reference # CED/TFL **32875** (Dr. M Rizwan Riaz)
Reference of the request letter # 716-18/2019

Dated: 19-03-2019
Dated: 18-03-2019

Tension Test Report (Page – 2/3)

Date of Test 01-04-2019
Gauge length 2 inches
Description G.I Pipe 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
	(inch)	(mm)	(mm ²)	(kg)	(kg)	(MPa)	(MPa)	(in)		
1	3	27.10x4.00	108.40	3300	4500	298.64	407.24	0.50	25.00	
2	3	27.20x4.00	108.80	3700	4300	333.61	387.71	0.50	25.00	
3	4	27.20x4.80	130.56	3400	4300	255.47	323.09	0.80	40.00	
4	4	27.20x4.80	130.56	3600	4300	270.50	323.09	0.70	35.00	
5	6	27.20x5.10	138.72	5200	7000	367.73	495.03	0.50	25.00	
6	6	27.20x5.10	138.72	5100	7000	360.66	495.03	0.50	25.00	
Only Six Samples for Tensile and Three Samples for Bend Test										
Bend Test										
Strip Taken from G.I Pipe (3") Bend Test Through 180° is Satisfactory										
Strip Taken from G.I Pipe (4") Bend Test Through 180° is Satisfactory										
Strip Taken from G.I Pipe (6") Bend Test Through 180° is Satisfactory										

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,
Assistant Engineer
Buildings
City-II (Jalal Abad), Sub Division Muzaffarabad
(Water Supply Scheme Doba Hutaridy and Marian Kalian Muzaffarabad)

Reference # CED/TFL **32875** (Dr. M Rizwan Riaz)
Reference of the request letter # 716-18/2019

Dated: 19-03-2019
Dated: 18-03-2019

Weight & Size Test Report (Page – 3/3)

Date of Test 01-04-2019
Gauge length -----
Description G.I Pipe Weight and Size Test

Sr. No.	Designation	Weight	Length	Weight per Unit Length	External Diameter	Internal Diameter	Thickness	Remark
	(inch)	(g)	(cm)	(kg/m)	(mm)	(mm)	(mm)	
1	1	1506	65.70	2.29	33.80	27.4	3.20	
2	1.5	2316	67.40	3.44	48.50	41.7	3.40	
3	2	3288	65.40	5.03	60.70	52.7	4.00	
4	3	5256	62.40	8.42	88.85	80.45	4.20	
5	4	7832	63.20	12.39	113.90	104.1	4.90	
6	6	12790	64.00	19.98	164.90	153.9	5.50	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
Only Six Samples for Test								

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
 Engineering Services Consultants
 Establishment of Sports Complex
 (Kamran Steel)

Reference # CED/TFL **32958** (Dr. M Rizwan Riaz)
 Reference of the request letter # RE/ESCC-2018/12

Dated: 29-03-2019
 Dated: 14-03-2019

Tension Test Report (Page -1/1)

Date of Test 01-04-2019
 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	0.342	3	0.358	0.11	0.101	2600	4100	52100	56950	82200	89800	1.20	15.0	
2	0.326	3	0.349	0.11	0.096	2500	4000	50100	57570	80200	92100	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



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
 Central China Power Grid International Economic & Trade Co. Ltd
 Design, Supply, Installation, YTesting & Commissioning of Associated Transmission Lines for
 New Lahore 500kV and Gujrat 220kV Substation
 Reference # CED/TFL **32959** (Dr. M Rizwan Riaz) Dated: 29-03-2019
 Reference of the request letter # CCPG/3263/P-II/UET/15749 Dated: 29-03-2019

Tension Test Report (Page -1/1)

Date of Test 01-04-2019
 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	5.460	11	1.430	1.56	1.605	50200	71800	71000	68940	101500	98600	1.00	12.5	
2	5.520	11	1.437	1.56	1.623	56000	77400	79200	76070	109400	105200	1.20	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and two samples for bend test														
Bend Test														
#11 Bar Bend Test Through 180° is Satisfactory														
#11 Bar Bend Test Through 180° is Satisfactory														

Witness by Umair Afzal Bajwa (Jr. Engr. NESPAK)

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

Ref: CED/TFL/03/32963

Dated: 29-03-19

To
Project Manager
DAELIM-LOTTE
102MW-Gulpur Hydropower Project

Subject: - TEST RESULT REPORT FOR BEARING DEVICE (PAD)

Reference to your letter no. DLJV-OT-QA-175, Dated: 26/03/2019 on the above mentioned subject. One Elastomeric Bearing Rubber Pad (EBRP)(Lab Number: DLJV-LAB-19-5826, Sample No: BP-03, Source: Rainbow) has been received by us. The same was tested and results are given below.

Laboratory	:	TEST FLOOR LAB
Machine	:	SHIMADZU
Sample No.	:	1/1
Dimensions of EBRP	:	351 x 204 x 81.35 mm

TEST RESULTS - SHORT DURATION

Load Duration	:	5+5 minutes
Test Load	:	90 TONS
Bulging Pattern	:	Uniform Bulging.
Laminated Parallelism	:	Parallel
Cracks	:	No crack is observed

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,
M/S Stylers International (Pvt) Ltd
Lahore

Reference # CED/TFL **32969** (Dr. M Rizwan Riaz)
Reference of the request letter # Nil

Dated: 01-04-2019

Dated: 01-04-2019

Tension Test Report (Page -1/1)

Date of Test 01-04-2019

Gauge length 8 inches

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

Sr. No.	Weight	Diameter/ Size (mm)		Area (in ²)		Yield load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
	(lbs/ft)	Nominal	Actual	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)		
1	0.381	10	9.59	0.11	0.112	3260	5200	65400	64210	104200	102500	0.80	10.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only one sample 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.

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
 AZ Engineering Associates
 Construction of Road at kot Ladheywala Warraich Rigid Pavement Dual Carriageway
 Gujranwala to Hafizabad Road
 Reference # CED/TFL **32974** (Dr. Asif Hameed) Dated: 01-04-2019
 Reference of the request letter # AZEA/REKMK/753 Dated: 30-03-2019

Tension Test Report (Page -1/1)

Date of Test 01-04-2019
 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	0.366	3	0.370	0.11	0.108	3080	4380	61800	63140	87800	89800	1.10	13.8	
2	0.362	3	0.368	0.11	0.106	3380	4540	67800	69960	91000	94000	0.90	11.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and two samples for bend test														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

Witness by M Saleem Bhatti (RE AZEA)

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