



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
ZEERUK – LOYA – MIHA Jv
Development of Islamabad Expressway PWD Underpass to GT - Road including Bhandar
Bridge, Japan Road Underpass & Soan Bridge.

Reference # CED/TFL **5660** (Dr. M Rizwan Riaz)
Reference of the request letter # ZI/RE/FWO/P-N-5/24/353

Dated: 12-09-2024
Dated: 30-08-2024

Tension Test Report (Page – 1/2)

Date of Test 19-09-2024
Gauge length 2 inches
Description Guard Rail (W-Section) Strip Tensile and Bend Test as per AASHTO M-180

Sr. No.	Designation	Size of Strip	X Section Area	Yield load	Breaking Load	Yield Stress	Ultimate Stress	Elongation	% Elongation	Remarks
1	W-Section	2.635x0.23	0.61	4500	5500	7425	9075	0.30	15.00	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
Only One Sample for Tensile and One Sample for Bend Test										
Bend Test										
Strip taken from W-Section 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



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Development of Islamabad Expressway PWD Underpass to GT - Road including Bhandar
Bridge, Japan Road Underpass & Soan Bridge.

Reference # CED/TFL **5660** (Dr. M Rizwan Riaz)
Reference of the request letter # ZI/RE/FWO/P-N-5/24/353

Dated: 12-09-2024
Dated: 30-08-2024

Tension Test Report (Page – 2/2)

Date of Test 19-09-2024
Gauge length 2 inches
Description Steel Post Strip Tensile Test as per ASTM A36

Sr. No.	Designation	Size of Strip	X Section Area	Yield load	Breaking Load	Yield Stress	Ultimate Stress	Elongation	% Elongation	Remarks
	-----	(mm)	(mm ²)	(kg)	(kg)	(MPa)	(MPa)	(in)	%	
1	Post	26.30x6.60	173.58	6800	8900	384	503	0.60	30.00	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
Only One Sample for Tensile Test										
Bend Test										

I/C Testing Laboratories
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To,
Resident Engineer
NESPAK – TurkPak Jv
Establishment General Hospital at District Bahawalnagar.

Reference # CED/TFL **5687** (Dr. M Rizwan Riaz)
Reference of the request letter # 4460/13/MIAC/04/394

Dated: 19-09-2024
Dated: 11-09-2024

Tension Test Report (Page -1/2)

Date of Test 19-09-2024
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	0.378	3	0.376	0.11	0.111	3300	4900	66200	65490	98200	97300	1.30	16.3	Hunza Steel
2	0.377	3	0.376	0.11	0.111	3300	4900	66200	65640	98200	97500	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,

Resident Engineer
 NESPAK – TurkPak Jv
 Establishment of 200 Bedded Mother and Child Hospital and Nursing College at District Bahawalnagar.

Reference # CED/TFL **5687** (Dr. M Rizwan Riaz)
 Reference of the request letter # 4460/13/MIAC/04/393

Dated: 19-09-2024
 Dated: 09-09-2024

Tension Test Report (Page -2/2)

Date of Test 19-09-2024
 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	0.377	3	0.376	0.11	0.111	3400	4700	68200	67550	94200	93400	1.10	13.8	FF Steel
2	0.378	3	0.376	0.11	0.111	3400	4600	68200	67400	92200	91200	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														

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