



**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 Defence Housing Authority.  
 Lahore Cantt  
 (Infra Dev Works of Ph-IX – (Pkg-VIII), DHA Lahore (M/s Maaksons)

Reference # CED/TFL **35135** (Dr. M Rizwan Riaz) Dated: 15-07-2020  
 Reference of the request letter # 408/241/E/Lab/833/13092 Dated: 13-07-2020

**Tension Test Report** (Page -1/2)

Date of Test 16-07-2020  
 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 <sup>2</sup> )		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	0.368	3	0.371	0.11	0.108	3430	4810	68800	69870	96400	98000	1.10	13.8	Mughal Steel
2	0.356	3	0.365	0.11	0.104	3770	4710	75600	79520	94400	99400	1.10	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and one sample for bend test</b>														
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  
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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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To,  
M/S Defence Housing Authority.  
Lahore Cantt  
(Infra Dev Works of Ph-IX – (Pkg-V), DHA Lahore (M/s Maaksons))

Reference # CED/TFL **35135** (Dr. M Rizwan Riaz) Dated: 15-07-2020  
Reference of the request letter # 408/241/E/Lab/830/13091 Dated: 13-07-2020

**Tension Test Report** (Page -2/2)

Date of Test 16-07-2020  
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 <sup>2</sup> )		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	0.357	3	0.366	0.11	0.105	3620	4590	72600	75940	92000	96300	0.90	11.3	Mughal Steel
2	0.366	3	0.370	0.11	0.108	3590	4890	72000	73530	98000	100200	1.00	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and one sample for bend test</b>														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

**I/C Testing Laboratoires**  
**UET Lahore, Pakistan.**

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**University of Engineering and Technology Lahore, 54890**  
**Pakistan. Ph: 92-42-99029202**

To,  
 Resident Engineer (Sec-I)  
 Finite - CPM Joint Venture  
 Improvement Up – Gradation and Widening of Jaglot Sardu Road (S-I)

Reference # CED/TFL **35124** (Dr. M Rizwan Riaz)  
 Reference of the request letter # FC/JV/JSR/2019/F-074

Dated: 14-07-2020  
 Dated: 07-07-2020

**Tension Test Report** (Page -1/1)

Date of Test 16-07-2020  
 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 <sup>2</sup> )		Yield load (kg)	Breaking Load (kg)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Heat No.
		Nominal	Actual	Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	4.455	32	32.80	1.25	1.310	33200	53600	58554	55880	94533	90300	1.80	22.5	4821
2	4.478	32	32.88	1.25	1.316	33600	53800	59260	56260	94886	90100	1.80	22.5	
-	4.890	36	34.36	1.58	1.437	42600	58400	59440	65330	81486	89600	1.50	18.8	8403
-	4.931	36	34.51	1.58	1.449	42400	57600	59161	64480	80370	87600	1.50	18.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	

**Note: only four samples for tensile and two samples for bend test**

**Bend Test**

32mm Dia Bar Bend Test Through 180° is Satisfactory

36mm Dia Bar Bend Test Through 180° is Satisfactory

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**UET Lahore, Pakistan.**

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To,  
 Resident Engineer  
 AZEA Sialkot Residency  
 Dualization of Sialkot-Pasrur Road, Length = 27.35 km Phase-I (km 0.0 to 14.00)(Section km  
 No. 1.35 to 5.80 km, Length = 4.45 km) in District Sialkot, Group-I

Reference # CED/TFL **35133** (Dr. M Rizwan Riaz) Dated: 15-07-2020  
 Reference of the request letter # AZEA/SIALKOT/ADAM/20/13A Dated: 01-07-2020

**Tension Test Report** (Page -1/1)

Date of Test 16-07-2020  
 Gauge length 8 inches  
 Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size (inch)		Area (in <sup>2</sup> )		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	0.411	3/8	0.392	0.11	0.121	4490	6090	90000	81940	122100	111200	1.00	12.5	Mughal Steel
2	0.408	3/8	0.391	0.11	0.120	4330	6090	86800	79660	122100	112100	1.00	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and one sample for bend test</b>														
Bend Test														
3/8" Dia Bar Bend Test Through 180° is Satisfactory														

**I/C Testing Laboratoires**  
**UET Lahore, Pakistan.**

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**Test Floor Laboratory**  
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**University of Engineering and Technology Lahore, 54890**  
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To,  
M/S Engineering Associated Precast (Pvt) Ltd  
Lahore

Reference # CED/TFL **35134** (Dr. Waseem Abbas)  
Reference of the request letter # EAP/UET/2019-20/2173

Dated: 15-07-2020

Dated: 15-07-2020

**Tension Test Report** (Page -1/1)

Date of Test 16-07-2020  
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)		% Elongation	Remarks / Coil No.
	(mm)	(kg/km)	(kg/km)	(kg)	(kN)	(kg)	(kN)		
1	9.53 (3/8")	432.0	447	6900	67.69	11000	107.91	>3.50	xx
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
<b>Only one sample for Test</b>									

Witness by Altaf (D.M. Civil)

**I/C Testing Laboratoires**  
**UET Lahore, Pakistan.**

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To,  
 Khurram Shahzad  
 Lahore

Reference # CED/TFL **35136** (Dr. M Rizwan Riaz)  
 Reference of the request letter # Nil

Dated: 15-07-2020  
 Dated: 15-07-2020

**Tension Test Report** (Page -1/1)

Date of Test 16-07-2020  
 Gauge length 8 inches  
 Description Deformed Steel Bar Tensile Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size (inch)		Area (in <sup>2</sup> )		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	0.372	3/8	0.373	0.11	0.109	3620	5350	72600	73000	107200	107900	1.10	13.8	
2	0.374	3/8	0.374	0.11	0.110	3620	5350	72600	72520	107200	107200	1.00	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile test</b>														
Bend Test														

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To,  
 Resident Engineer - I  
 NESPAK  
 Construction Underpass at Firdous Market, Lahore

Reference # CED/TFL **35137** (Dr. M Rizwan Riaz)  
 Reference of the request letter # 3772/FMU/103/MWA/04/106

Dated: 15-07-2020  
 Dated: 14-07-2020

**Tension Test Report** (Page -1/1)

Date of Test 16-07-2020  
 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 <sup>2</sup> )		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	4.227	10	1.258	1.27	1.242	38000	52800	66000	67410	91700	93700	1.50	18.8	Pak Steel
2	4.229	10	1.258	1.27	1.243	37400	52200	65000	66320	90600	92600	1.40	17.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and one sample for bend test</b>														
Bend Test														
#10 Bar Bend Test Through 180° is Satisfactory														

**I/C Testing Laboratoires**  
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To,  
 Resident Engineer - I  
 NESPAK  
 Construction Underpass at Firdous Market, Lahore

Reference # CED/TFL **35138** (Dr. M Rizwan Riaz)  
 Reference of the request letter # 3772/FMU/103/MWA/04/104

Dated: 15-07-2020  
 Dated: 13-07-2020

**Tension Test Report** (Page -1/1)

Date of Test 16-07-2020  
 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 <sup>2</sup> )		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	4.219	10	1.257	1.27	1.240	40600	55600	70500	72160	96500	98900	1.40	17.5	Pak Steel
2	4.166	10	1.249	1.27	1.225	40000	55200	69500	72000	95800	99400	1.30	16.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and one sample for bend test</b>														
Bend Test														
#10 Bar Bend Test Through 180° is Satisfactory														

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