CAHOSE

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 Macrise (Pvt) Ltd Lahore

Reference # CED/TFL **33647** (Dr. Ali Ahmed)

Reference of the request letter # Nil

Dated: 30-07-2019

Dated: 30-07-2019

Tension Test Report (Page - 1/2)

Date of Test 05-07-2019 Gauge length 2 inches

Description MS Plate Steel Strip Tensile Test

Sr. No.	(mm) Designation	Size of Strip	X Section Area Area	gy Yield load	Breaking © Load	(MPa)	Ultimate Stress	(ui) Elongation	% Elongation	Remarks
1	6	29.00x5.90	171.10	5200	7300	298.14	418.54	0.90	45.00	
2	6	29.00x5.90	171.10	4800	7300	275.21	418.54	0.70	35.00	
-	-	-		-	•	-	-	•	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
		(Only Two	Sample	s for Tensi	le Test	T		1	
				Bend	Test					

I/C Testing Laboratoires UET Lahore, Pakistan.

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

To, M/s Macrise (Pvt) Ltd Lahore

Reference # CED/TFL **33647** (Dr. Ali Ahmed)

Reference of the request letter # Nil

Dated: 30-07-2019

Dated: 30-07-2019

Tension Test Report (Page - 2/2)

Date of Test 05-07-2019

Gauge length 2 inches

Description Welded Plate Tensile Test

Sr. No.	(mm) Designation	(mm) Size of Strip	X Section Area	Breaking © Load	Ultimate Stress	(doni) Elongation	% Elongation	Remarks
1	7	23.40x7.10	166.14	7300	431.04	0.60	30.00	Failure at the location other than weld
2	7	23.40x7.10	166.14	7300	431.04	0.50	25.00	Failure at the location other than weld
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	•	-	-	•	-
-	-	-	-	-	-	-	-	-
				Only t	wo sampl	es for tei	nsile test	t
					Bend	l Test		

I/C Testing Laboratoires UET Lahore, Pakistan.

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

To, Resident Engineer RENARDET S.A ((M-4), Package-IIIB)

Construction of Faisalabad – Khanewal Project (M-4) Package-III, Dinpur - Khnewal, Section 3B (D & L International)(M/s Xinjiang Beixin Road & Bridge Group Co, Ltd)

Reference # CED/TFL **33661** (Dr. M Rizwan Riaz) Dated: 31-07-2019 Reference of the request letter # RE/M-4/3B/2019/473 Dated: 30-07-2019

Tension Test Report (Page -1/2)

Date of Test 05-07-2019 Gauge length 2 inches

Description W-Section Steel 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
		(cm)	(cm ²)	(kg)	(kg)	(kg/cm ²)	(kg/cm ²)	(in)	%	
1	W-Section	3.215x0.295	0.95	4200	5000	4428.39	5271.90	0.40	20.00	S-1
2	w-section	3.215x0.295	0.95	4200	5000	4428.39	5271.90	0.40	20.00	5-1
3	W-Section	3.215x0.295	0.95	4200	5000	4428.39	5271.90	0.50	25.00	S-2
4	w-section	3.215x0.295	0.95	4200	5100	4428.39	5377.34	0.50	25.00	5-2
5	W-Section	3.215x0.295	0.95	4300	5000	4533.83	5271.90	0.50	25.00	S-3
6	w-section	3.215x0.295	0.95	4100	5100	4322.96	5377.34	0.50	25.00	3-3
		Only Six S	amples fo	or Tensile a	and Six Sa	mples for B	end Test	Г		
				Bend	l Test					
Stri	p Taken from W-	Section Bend T	est Throu			y				
Stri	p Taken from W-	Section Bend T	est Throu	gh 180° is 3	Satisfactor	y				
	p Taken from W-									
	p Taken from W-									
	p Taken from W-									
Stri	p Taken from W-	Section Bend T	est Throu	gh 180° is 3	Satisfactor	y				

I/C Testing Laboratoires UET Lahore, Pakistan.

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

To, Resident Engineer RENARDET S.A ((M-4), Package-IIIB)

Construction of Faisalabad – Khanewal Project (M-4) Package-III, Dinpur - Khnewal, Section 3B (D & L International)(M/s Xinjiang Beixin Road & Bridge Group Co, Ltd)

Reference # CED/TFL **33661** (Dr. M Rizwan Riaz) Dated: 31-07-2019 Reference of the request letter # RE/M-4/3B/2019/473 Dated: 30-07-2019

Tension Test Report (Page – 1/2)

Date of Test 05-07-2019 Gauge length 2 inches

Description W-Section Steel Strip Tensile and Bend Test

Sr. No.	Designation	© Size of Strip	X Section Area (cm ²)	(g) Yield load	(gay) Breaking Load	(kg/cm ²)	Cltimate Cltimate (kg/cm ²)	(ii) Elongation	% Elongation	Remarks
1	W-Section	3.215x0.295	0.95	4200	5000	4428.39	5271.90	0.50	25.00	S-4
2	w-section	3.215x0.295	0.95	4100	5100	4322.96	5377.34	0.50	25.00	5-4
3	W Costion	3.215x0.295	0.95	4200	5100	4428.39	5377.34	0.50	25.00	S-5
4	W-Section	3.210x0.295	0.95	4200	5000	4435.29	5280.11	0.50	25.00	3-3
-		-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-
		Only Four S	amples fo	or Tensile a	and Four S	Samples for	Bend Test			
				Bend	l Test					
Stri	p Taken from W-	Section Bend T	est Throu	gh 180° is 3	Satisfactor	y				
Stri	p Taken from W-	Section Bend T	est Throu	gh 180° is 3	Satisfactor	y				

Strip Taken from W-Section Bend Test Through 180° is Satisfactory

Strip Taken from W-Section Bend Test Through 180° is Satisfactory

I/C Testing Laboratoires UET Lahore, Pakistan.

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

To.

Resident Engineer CPEC-Package-3

NESPAK

China – Pakistan Economic Corridor (CPEC), Western Route Hakla (On M1) – Yarak (D.I

Khan) Motorway, Package-3 (Tarap to Kot Belian)

Reference # CED/TFL **33668** (Dr. Ali Ahmed) Dated: 01-08-2019

Reference of the request letter # CPEC/NESPAK/CS/PKG3/19/1089

Dated: 30-07-2019

Tension Test Report (Page -1/1)

Date of Test 05-08-2019 Gauge length 8 inches

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

Sr. No.	Weight		neter/ ze		rea n²)	Yield load	Breaking Load		Stress si)		e Stress si)	Elongation	% Elongation	Remarks
S	(lbs/ft)	Nominal (#)	Actual (inch)	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)	% E	Re
1	0.368	3	0.371	0.11	0.108	3300	5200	66200	67230	104200	106000	1.00	12.5	Ittefaq Steel
2	0.373	3	0.374	0.11	0.110	3200	5200	64200	64320	104200	104600	1.00	12.5	Itte St
3	4.111	10	1.240	1.27	1.209	41600	56600	72200	75870	98300	103300	1.30	16.3	Mughal Steel
4	4.085	10	1.237	1.27	1.201	41600	56600	72200	76360	98300	103900	1.40	17.5	Mug
5	4.216	10	1.256	1.27	1.239	40800	55200	70900	72570	95800	98200	1.30	16.3	
6	4.212	10	1.256	1.27	1.238	40400	54600	70200	71930	94800	97200	1.50	18.8	Steel
7	5.473	11	1.431	1.56	1.609	50000	67600	70700	68510	95600	92700	1.50	18.8	Nimi Steel
8	5.460	11	1.429	1.56	1.605	51400	69000	72700	70590	97500	94800	1.50	18.8	
			Not	e: only	eight s	amples fo	or tensile	and four	samples	for bend	l test	I	I	
							Bend T	est						

#3 Bar Bend Test Through 180° is Satisfactory

#10 Bar Bend Test Through 180° is Satisfactory

#10 Bar Bend Test Through 180° is Satisfactory

#11 Bar Bend Test Through 180° is Satisfactory

I/C Testing Laboratoires UET Lahore, Pakistan.

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

To,
M/S Ittefaq Building Solution Pvt Ltd
Lahore
(Superior House)(Raees Faheem & Associates)

Reference # CED/TFL **33675** (Dr. Ali Ahmed)

Reference of the request letter # Superior House/01

Dated: 02-08-2019

Dated: 02-08-2019

Tension Test Report (Page -1/1)

Date of Test 05-08-2019 Gauge length 8 inches

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

Sr. No.	Weight		neter/ ze		rea 1 ²)	Yield load	Breaking Load		Stress si)	Ultimat (p		Elongation	% Elongation	Remarks
S	(lbs/ft)	Nominal (#)	Actual (inch)	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)	% E	R
1	0.377	3	0.376	0.11	0.111	3100	5000	62200	61670	100200	99500	1.20	15.0	
•	-	•	•	-	-	-	-	-	-	-	•	1	•	
1	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	1	-	-	-	-	-	-	-	-	•	-	ı	
	-	-		-	-	-	-	-	-		•	1		
	-		N	ote: on	ly one s	sample fo	r tensile	and one	sample f	or bend to	est			1
ш2	D D	1 T 1	F1 1	1000	- C-4:-C	-4	Bend T	est						
#3	Bar Ben	d Test	Γhrough	180° is	s Satisfa	ctory								

I/C Testing Laboratoires UET Lahore, Pakistan.

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

To, Acting Project Director Air University Multan Campus Construction of Academic Block-I (Ittefaq Steel)

Reference # CED/TFL **33676** (Dr. Ali Ahmed)

Reference of the request letter # MUX/AUMC/AB1/2018/103

Dated: 02-08-2019

Dated: 01-08-2019

Tension Test Report (Page -1/1)

Date of Test 05-08-2019 Gauge length 8 inches

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

Sr. No.	Weight		neter/ ze		rea 1 ²)	Yield load	Breaking Load		Stress si)		te Stress si)	Elongation	% Elongation	Remarks
<i>S</i> ₂	(lbs/ft)	Nominal (#)	Actual (inch)	Nominal			(kg)	Nominal	Actual	Nominal	Actual	(inch)	3 %	R
1	0.377	3	0.376	0.11	0.111	2800	4200	56200	55630	84200	83500	1.40	17.5	
2	0.370	3	0.372	0.11	0.109	2700	4100	54100	54720	82200	83100	1.40	17.5	
-	•	•	•	1	-	-	-	•	-	-	-	-	-	
-		-	-	-	-	-	-	-	-	-	-	-	-	
-		-	-	-	-	-	-	-	-	-	-	-	-	
-		-	-	-	-	-	-	-	-	-	-	-	-	
			N	ote: on	ly two s	amples f	or tensile	and one	sample f	or bend t	test			
							Bend T	est						
#3	Bar Ben	d Test	Through	180° is	s Satisfa	ctory								

I/C Testing Laboratoires UET Lahore, Pakistan.

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STRUCTURAL ENGINEERING DIVISION

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

To,
Maintenance Engineer - II
University of The Punjab
Construction of Tractor Garage/Store and Rooms with Wash Room in Experimental Station at IAGS at Q.A.C

Reference # CED/TFL **33677** (Dr. Ali Ahmed)

Reference of the request letter # D-1011-MEII

Dated: 02-08-2019

Dated: 30-07-2019

Tension Test Report (Page -1/1)

Date of Test 05-08-2019 Gauge length 8 inches

Description Deformed Steel Bar Tensile Test as per ASTM A615

Sr. No.	Weight		neter/ ze	Aı (iı	rea n²)	Yield load	Breaking Load		Stress si)		te Stress si)	Elongation	% Elongation	Remarks
S	(lbs/ft)	Nominal (#)	Actual (inch)	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)	% E	R
1	0.378	3	0.376	0.11	0.111	3000	4900	60200	59520	98200	97300	1.60	20.0	
2	0.373	3	0.373	0.11	0.110	2900	4400	58200	58360	88200	88600	1.50	18.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-		-	-	-	-	-	-	-	-	-	-	-	-	
-		-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
					Not	e: only t	wo sampl	les for te	nsile test	1	1	1		
							Bend T	'est						

I/C Testing Laboratoires UET Lahore, Pakistan.

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

To,
Managining Director
M/s Malik Habib & Brothers
Construction of 64 Men Barracks for C-3/4 at Chashma

Reference # CED/TFL **33679** (Dr. Ali Ahmed)

Reference of the request letter # MHB/QA-QC/64 Men Barraks/05

Dated: 02-08-2019

Dated: 31-07-2019

Tension Test Report (Page -1/1)

Date of Test 05-08-2019 Gauge length 8 inches

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

Sr. No.	Weight		neter/ ze		rea n²)	Yield load	Breaking Load		Stress si)		e Stress si)	Elongation	% Elongation	Remarks
S	(lbs/ft)	Nominal (#)	Actual (inch)	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)	% E	Re
1	0.366	3	0.370	0.11	0.108	2900	5000	58200	59440	100200	102500	1.10	13.8	
2	0.367	3	0.371	0.11	0.108	2900	5000	58200	59280	100200	102200	1.10	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
			N	ote: on	ly two s	amples f	or tensile	and one	sample f	or bend t	test			
		Bend Test												
#3	Bar Ben	d Test	Through	180° is	s Satisfa	ictory	Delid 1	Cot						

I/C Testing Laboratoires UET Lahore, Pakistan.

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

To,

Assistant Director, (North)

Sub Div: Eid Gah WASA (MDA) Multan

Construction of New / Replacement of Old Sewerage Lines in UC 7 & UC 8 Multan

Reference # CED/TFL **33680** (Dr. Ali Ahmed)

Reference of the request letter # 90/AD(N)/WASA

Dated: 02-08-2019

Dated: 10-06-2019

Tension Test Report (Page -1/1)

Date of Test 05-08-2019 Gauge length 8 inches

Description Deformed Steel Bar Tensile Test as per ASTM A615

Weight	Si	ze			Yield load	Breaking Load					Elongation	longation	Remarks
(lbs/ft)	Nominal	Actual	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)	% E	Re
0.106	3/16	0.199		0.031	1000	1200		70650		84800	0.80	10.0	
0.110	3/16	0.203		0.032	900	1200		61300		81800	1.00	12.5	
•	-	-	1	-	•	-	•	-	-	-	-	1	
•	-	-	•	-	•	-	•	-	-	-	-	1	
•	-	-	•	-	•	-	•	-	-	-	-	•	
-	-	-	-	-	-	-	-	-	-	-	-	-	
		1		Not	e: only t	wo sampl	es for ter	nsile test	ı	1	ı		ı
						Bend T	est						
	0.106	(lps/ft) 0.106 3/16 0.110 3/16	(lps/ft) O.106 3/16 0.199 O.110 3/16 0.203	(lps/ft) O.106 3/16 0.199 O.110 3/16 0.203	(lps/ft) (lps/f	(kg) (kg) (kg) 0.106 3/16 0.199 0.031 1000 0.110 3/16 0.203 0.032 900 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -	(kg) (kg) <th< td=""><td>(kg) (kg) <th< td=""><td>(t) Image: Lange of the lange</td><td>(t) Tem (line) Tem (line) (kg) (kg) (kg) (kg) Tem (line) Tem (line)</td><td> The state of the late of the</td><td> Table Tabl</td><td> Color Colo</td></th<></td></th<>	(kg) (kg) <th< td=""><td>(t) Image: Lange of the lange</td><td>(t) Tem (line) Tem (line) (kg) (kg) (kg) (kg) Tem (line) Tem (line)</td><td> The state of the late of the</td><td> Table Tabl</td><td> Color Colo</td></th<>	(t) Image: Lange of the lange	(t) Tem (line) Tem (line) (kg) (kg) (kg) (kg) Tem (line) Tem (line)	The state of the late of the	Table Tabl	Color Colo

I/C Testing Laboratoires UET Lahore, Pakistan.

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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 CM Engineering (Pvt) Ltd Lahore

(Long Haul Project Site ID:- 4093, 4180, 4185, 4442, 4521, 4898, 5093, 5634, 7124, 7182, 8637, 4132)

Reference # CED/TFL **33681** (Dr. Ali Ahmed) Dated: 02-08-2019

Reference of the request letter # CME/Steel/Long Haul/328 Dated: 25-07-2019

Tension Test Report (Page -1/1)

Date of Test 05-08-2019 Gauge length 8 inches

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

Sr. No.	Weight	Si	neter/ ze m)		rea n²)	Yield load	Breaking Load		Stress si)		e Stress si)	Elongation	% Elongation	Remarks
S	(lbs/ft)	Nominal	Actual	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)	% E	R
1	0.357	10	9.28	0.12	0.105	3800	4700	69812	79890	86347	98900	0.90	11.3	
2	0.356	10	9.27	0.12	0.105	3900	4700	71650	82140	86347	99000	1.00	12.5	
-	-	-	-	-	-	•	-	-	-	-	-	-	•	
-	-	-	-	-	-	•	•	-	-	-	•	-	1	
-	-	-	-	-	-	-	-	-	-	-	-	-		
-	-	-	-	-	-	-	-	-	-	-	-	-	•	
		•	N	ote: on	ly two s	amples f	or tensile	and one	sample f	or bend t	test	1		
							Bend T	est						

10mm Dia Bar Bend Test Through 180° is Satisfactory

I/C Testing Laboratoires UET Lahore, Pakistan.

- 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



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

To,

M/s Macrise (Pvt) Ltd

Lahore

Project:- EPS Solutions Pakistan (Pvt) Ltd

Reference # CED/TFL **33683** (Dr. Ali Ahmed)

Reference of the request letter # MAC/M31C/EPS290/Lab009

Dated: 02-08-2019

Dated: 02-08-2019

Tension Test Report (Page -1/1)

Date of Test 05-08-2019 Gauge length 8 inches

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

Sr. No.	Weight		neter/ ze		rea n²)	Yield load	Breaking Load		Stress si)		e Stress si)	Elongation	% Elongation	Remarks
S	(lbs/ft)	Nominal (#)	Actual (inch)	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)	% E	R
1	0.405	3	0.389	0.11	0.119	4000	5300	80200	74020	106200	98100	1.20	15.0	
2	0.403	3	0.388	0.11	0.118	3800	5100	76200	70740	102200	95000	1.10	13.8	
-	•	-	-	-	-	-	-	-	-	-	-	-	-	
-	•	-	-	-	-	-	-	-	-	-	-	-	-	
-	•	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
			N	ote: on	ly two s	amples f	or tensile	and one	sample f	or bend t	test			
							Bend T	<u>'est</u>						
#3	Bar Ben	d Test	Γhrough	180° is	s Satisfa	ctory								

I/C Testing Laboratoires UET Lahore, Pakistan.

- 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



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

To,
Resident Engineer
Orbit Housing
The Spring Apartment Homes

Reference # CED/TFL **33684** (Dr. Qasim Khan)

Reference of the request letter # Nil

Dated: 05-08-2019

Dated: 05-08-2019

Tension Test Report (Page -1/1)

Date of Test 05-08-2019
Gauge length 8 inches

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

Sr. No.	Weight	Diameter/ size		Area (in²)		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)	% E	R
1	0.369	3	0.371	0.11	0.108	3700	4900	74200	75280	98200	99700	1.00	12.5	
2	0.367	3	0.371	0.11	0.108	4000	5000	80200	81630	100200	102100	0.80	10.0	
		-	-	-	-	-	-	-	-	-	-	-	-	
ı	•	•	•	•	-	-	•	-	-	-	•	1	-	
		-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
			N	ote: on	ly two s	amples f	or tensile	and one	sample f	or bend t	test	· · · · · · · · · · · · · · · · · · ·		,
"2	D D	1.77	D1 1	1000:	G .: C		Bend T	est						
#3	Bar Ben	d Test '	Through	1 180° 18	s Satisfa	ctory								

I/C Testing Laboratoires UET Lahore, Pakistan.

- 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.
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MEERING TO THE PARTY OF THE PAR

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
(Proposed Commercial Plaza, DRGCC Ph-III, DHA Ph-VI)(M/s Construct)

Reference # CED/TFL **33685** (Dr. Qasim Khan) Dated: 05-08-2019 Reference of the request letter # 408/241/E/Lab/669/3335 Dated: 02-08-2019

Tension Test Report (Page -1/1)

Date of Test 05-08-2019 Gauge length 8 inches

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

Sr. No.	Weight	Diameter/		Area (in²)		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)	% E	R
1	0.359	3	0.366	0.11	0.105	3800	5100	76200	79450	102200	106700	1.00	12.5	u
2	0.370	3	0.372	0.11	0.109	3700	4900	74200	75040	98200	99400	1.30	16.3	Kamran Steel
•	-	-	-	-	-	-	-	-	-	-	-	-	-	K
		-	-	-	-	-	-	-	-	-	-	-	-	
		-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		Ī	No	ote: on	ly two s	amples f	or tensile	and one	sample f	or bend 1	test	1		
							Bend T	est						
#3	Bar Ben	d Test	Through	180° is	s Satisfa	ctory								

I/C Testing Laboratoires UET Lahore, Pakistan.

- 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
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