

Abdul Rasheed  
 General Manager, A.S. Enterprises, Engineers & Contractors, Lahore

Test Performed By: Dr. /Engr. M RizwanRiaz

Client Reference: USD/ASE/11  
 SOM Lab Ref: CED/SOM/350(Page-2/2)

Dated: 25-02-2019  
 Dated: 25-02-2019

Test: Tension Test & Bend Test  
 Sample Type: M S Deformed Bar(AFCO Steel)

Test Specification: ASTM-A 615  
 Gauge Length: 200 mm

S.No.	Weight	Dia.		Area		Yield Load	Ultimate Load	Yield Stress		Ult. Stress		Elongation	Gauge Length	%age Elongation	Remarks
		Nominal	Calculated	Nominal	Calculated			(according to nominal area)	(according to measured area)	(according to nominal area)	(according to measured area)				
	kg/m	mm	mm	mm <sup>2</sup>	mm <sup>2</sup>	kN	kN	MPa	MPa	MPa	MPa	mm	mm	%	
1	2.465	20	20.00	314	314	171.00	217.70	544	545	693	694	32.5	200	16.3	
2	2.444	20	19.91	314	311	158.70	205.50	505	510	654	660	32.5	200	16.3	
3	1.536	16	15.78	201	196	118.20	139.20	588	605	692	712	30.0	200	15.0	
4	1.543	16	15.82	201	197	117.50	138.70	584	598	690	706	27.5	200	13.8	
5	0.897	12	12.07	113	114	77.50	83.50	685	678	738	731	22.5	200	11.3	
6	0.933	12	12.30	113	119	79.50	95.00	703	670	840	800	20.0	200	10.0	
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**BEND TEST:**

20mm	Sample bend through 180 degrees Satisfactorily without any crack	<b>Note:-</b>  <b>Only Nine Samples Received and Tested</b>
16mm	Sample bend through 180 degrees Satisfactorily without any crack	
12mm	Sample bend through 180 degrees Satisfactorily without any crack	

Note: Please always confirm the results of above report on web [www.uet-civil.edu.pk](http://www.uet-civil.edu.pk)

Laboratory In Charge

Test Performed By:

Dr. /Engr.

Bilal A Khokhar

Transtech Engineering Company, Haveli Bahadar Shah, Jhang, 1263 MW Punjab Thermal Power Plant, Jhang.

Client Reference: TEC/UET/19022501

Dated: nil

SOM Lab Ref: CED/SOM/357(Page-1/1)

Dated: 25-02-2019

Test: Tension Test & Bend Test

Test Specification: ASTM-A 615

Sample Type: Deformed Bar (Ittefaq Steel)

Gauge Length: 200 mm

S.No.	Weight	Dia.		Area		Yield Load	Ultimate Load	Yield Stress		Ult. Stress		Elongation	Gauge Length	%age Elongation	Remarks
		Nominal	Calculated	Nominal	Calculated			(according to nominal area)	(according to measured area)	(according to nominal area)	(according to measured area)				
	kg/m	mm	mm	mm <sup>2</sup>	mm <sup>2</sup>	kN	kN	MPa	MPa	MPa	MPa	mm	mm	%	
1	3.789	25	24.80	491	483	213.20	328.00	434	442	668	680	25.0	200	12.5	6793
2	3.878	25	25.08	491	494	224.90	346.70	458	456	706	702	22.5	200	11.3	6793
3	2.437	20	19.88	314	310	181.20	224.50	577	584	715	724	30.0	200	15.0	1336
4	2.438	20	19.88	314	311	180.60	217.50	575	582	692	701	25.0	200	12.5	1336
5	1.597	16	16.09	201	203	140.50	217.50	699	691	1082	1070	22.5	200	11.3	6416
6	1.587	16	16.04	201	202	138.20	160.20	687	684	797	793	22.5	200	11.3	6416
7	0.881	12	11.95	113	112	56.50	85.70	500	504	758	764	25.0	200	12.5	6368
8	0.878	12	11.93	113	112	55.20	85.20	488	494	753	762	27.5	200	13.8	6368
9	0.887	12	12.00	113	113	56.00	86.00	495	496	760	762	27.5	200	13.8	6756
10	0.886	12	11.99	113	113	55.10	85.00	487	489	752	754	25.0	200	12.5	6756

**BEND TEST:**

25mm	Sample bend through 180 degrees Satisfactorily without any crack
20mm	Sample bend through 180 degrees Satisfactorily without any crack
16mm	Sample bend through 180 degrees Satisfactorily without any crack
12mm	Sample bend through 180 degrees Satisfactorily without any crack
12mm	Sample bend through 180 degrees Satisfactorily without any crack

**Note:-**

**Only Three Samples Received and Tested**

Note: Please always confirm the results of above report on web [www.uet-civil.edu.pk](http://www.uet-civil.edu.pk)

Aftab Ahmed

Resident Engineer, Amad Anwar & Partners, Office # 12, 2nd Floor, Divine Center, New Airport Road, Lahore Cantt

Test Performed By:

Dr. /Engr. M Yousaf

Client Reference: 410/8/Business Hub/Ph-VIII/M&F

SOM Lab Ref: 340(Page-1/1)

Dated: 20-02-2019

Dated: 22-02-2019

Test: Tension Test & Bend Test

Test Specification:

ASTM-A-615

Gauge Length: 8 inch

Sample Type:

Deformed Bar (FF Steel)

S.No.	Weight	Dia.		Area		Yield Load	Ultimate Load	Yield Stress		Ult. Stress		Elongation	Gauge Length	%age Elongation	Remarks
		Nominal	Calculated	Nominal	Calculated			(according to nominal area)	(according to measured area)	(according to nominal area)	(according to measured area)				
	lb/ft	#	in	in <sup>2</sup>	in <sup>2</sup>	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	2.638	8	0.993	0.79	0.775	28.29	33.44	78970	80500	93340	95150	1.70	8.0	21.3	
2	2.637	8	0.993	0.79	0.775	23.75	33.54	66310	67590	93630	95440	1.70	8.0	21.3	
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**BEND TEST:**

# 8	Sample bend through 180 degrees Satisfactorily without any crack	<b>Note:-  Only Three Samples Received and Tested</b>

Note: Please always confirm the results of above report on web [www.uet-civil.edu.pk](http://www.uet-civil.edu.pk)

Prof . Dr. AmanUllah Khan

Acting Project Director, Air University, Multan Campus, 4-5th Floor, Khan Centre, Abdali Road, Multan

Test Performed By: Dr. /Engr. Bilal Khokhar

Client Reference: MUX/AUMC/AB1/2018/53

Dated: 22-02-2019

SOM Lab

Ref: 341(P-1/1)

Dated: 22-02-2019

Test: Tension Test & Bend Test

Test Specification:

ASTM-A-615

Gauge Length: 8 inch

Sample Type:

Deformed Bar ( Ittefaq Steel)

S.No.	Weight	Dia.		Area		Yield Load	Ultimate Load	Yield Stress		Ult. Stress		Elongation	Gauge Length	%age Elongation	Remarks
		Nominal	Calculated	Nominal	Calculated			(according to nominal area)	(according to measured area)	(according to nominal area)	(according to measured area)				
	lb/ft	#	in	in <sup>2</sup>	in <sup>2</sup>	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	1.509	6	0.751	0.44	0.443	16.74	20.76	83900	83330	104080	103380	0.90	8.0	11.3	
2	1.496	6	0.748	0.44	0.440	16.13	20.05	80830	80830	100500	100500	1.00	8.0	12.5	
3	0.650	4	0.493	0.20	0.191	5.07	7.70	55870	58500	84870	88870	1.50	8.0	18.8	
4	0.652	4	0.494	0.20	0.192	5.12	7.72	56430	58780	85100	88640	1.50	8.0	18.8	
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**BEND TEST:**

# 6	Sample bend through 180 degrees Satisfactorily without any crack	<b>Note:-  Only Six Samples Received and Tested</b>
# 4	Sample bend through 180 degrees Satisfactorily without any crack	

Note: Please always confirm the results of above report on web [www.uet-civil.edu.pk](http://www.uet-civil.edu.pk)

Maj Adnan khalid®

Test Performed By:

Dr. /Engr.

Usman Akmal

Dy Dir MTL, Const of Mosque at Sector - N, DHA - VI - (M/S A 2 Z Const)

SOM Lab

Ref:

343-349(Page-1/1)

Client Reference: 408/241/E/Lab/458

Dated: 22-02-2019

Dated:

22-02-2019

Test: Tension Test & Bend Test

Test Specification:

ASTM-A-615

Gauge Length: 8 inch

Sample Type:

Deformed Bar (City U. E. S)

S.No.	Weight	Dia.		Area		Yield Load	Ultimate Load	Yield Stress		Ult. Stress		Elongation	Gauge Length	%age Elongation	Remarks
		Nominal	Calculated	Nominal	Calculated			(according to nominal area)	(according to measured area)	(according to nominal area)	(according to measured area)				
	lb/ft	#	in	in <sup>2</sup>	in <sup>2</sup>	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	2.621	8	0.990	0.79	0.770	23.72	33.84	66220	67940	94480	96940	1.50	8.0	18.8	
2	2.591	8	0.984	0.79	0.761	22.22	33.51	62040	64400	93540	97110	1.40	8.0	17.5	
3	1.632	6	0.782	0.44	0.480	16.18	21.78	81090	74330	109190	100090	1.20	8.0	15.0	
4	1.614	6	0.777	0.44	0.474	16.31	21.87	81750	75890	109600	101740	1.10	8.0	13.8	
5	0.672	4	0.501	0.20	0.197	6.14	9.30	67670	68700	102520	104080	1.00	8.0	12.5	
6	0.679	4	0.505	0.20	0.200	6.24	9.43	68800	68800	103980	103980	1.20	8.0	15.0	
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**BEND TEST:**

# 8	Sample bend through 180 degrees Satisfactorily without any crack	<b>Note:-  Only Nine Samples Received and Tested</b>
# 6	Sample bend through 180 degrees Satisfactorily without any crack	
# 4	Sample bend through 180 degrees Satisfactorily without any crack	

Note: Please always confirm the results of above report on web [www.uet-civil.edu.pk](http://www.uet-civil.edu.pk)

Abdul Qayyum Chaudhary,  
Resident Engineer, NESPAK (Pvt) Ltd. Lahore

Test Performed By: Dr. /Engr. Bilal Khiokhar

Client Reference: 2636/103/AQC/SL/02/312

SOM Lab

Ref: 344(Page-1/1)

Dated: 20-02-2019

Dated: 22-02-2019

Test: Tension Test & Bend Test

Test Specification:

ASTM-A-615

Gauge Length: 8 inch

Sample Type:

Deformed Bar(AF STEEL)

S.No.	Weight	Dia.		Area		Yield Load	Ultimate Load	Yield Stress		Ult. Stress		Elongation	Gauge Length	%age Elongation	Remarks
		Nominal	Calculated	Nominal	Calculated			(according to nominal area)	(according to measured area)	(according to nominal area)	(according to measured area)				
	lb/ft	#	in	in <sup>2</sup>	in <sup>2</sup>	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	1.547	6	0.761	0.44	0.455	14.88	20.54	74600	72140	102960	99560	1.20	8.0	15.0	
2	1.010	5	0.615	0.31	0.297	11.43	14.48	81300	84860	102980	107490	1.10	8.0	13.8	
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**BEND TEST:**

# 6	Sample bend through 180 degrees Satisfactorily without any crack	<b>Note:-  Only Four Samples Received and Tested</b>
# 5	Sample bend through 180 degrees Satisfactorily without any crack	

Note: Please always confirm the results of above report on web [www.uet-civil.edu.pk](http://www.uet-civil.edu.pk)

Sub Divisional Officer  
( Civil ), GC University, Faisalabad

Test Performed By: Dr. /Engr. Bilal A Khokhar

Client Reference: GCUF/EC/0225

SOM Lab

Ref: 345 (Page-1/1)

Dated: 14-02-2019

Dated: 22-02-2019

Test: Tension Test & Bend Test

Test Specification:

ASTM-A-615

Deformed

Gauge Length: 8 inch

Sample Type:

Bar

S.No.	Weight	Dia.		Area		Yield Load	Ultimate Load	Yield Stress		Ult. Stress		Elongation	Gauge Length	%age Elongation	Remarks
		Nominal	Calculated	Nominal	Calculated			(according to nominal area)	(according to measured area)	(according to nominal area)	(according to measured area)				
	lb/ft	#	in	in <sup>2</sup>	in <sup>2</sup>	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	2.718	8	1.009	0.79	0.799	26.63	34.76	74330	73500	97040	95950	1.20	8.0	15.0	
2	2.657	8	0.997	0.79	0.781	25.50	34.73	71200	72020	96960	98070	1.50	8.0	18.8	
3	1.479	6	0.744	0.44	0.435	14.88	19.67	74600	75460	98610	99750	1.10	8.0	13.8	
4	1.498	6	0.748	0.44	0.440	16.18	21.46	81090	81090	107560	107560	1.20	8.0	15.0	
5	0.655	4	0.494	0.20	0.192	6.03	8.10	66550	69320	89370	93090	1.20	8.0	15.0	
6	0.656	4	0.496	0.20	0.193	6.34	8.23	69920	72460	90720	94010	0.90	8.0	11.3	
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**BEND TEST:**

# 8	Sample bend through 180 degrees Satisfactorily without any crack	<b>Note:-  Only Nine Samples Received and Tested</b>
# 6	Sample bend through 180 degrees Satisfactorily without any crack	
# 4	Sample bend through 180 degrees Satisfactorily without any crack	

Note: Please always confirm the results of above report on web [www.uet-civil.edu.pk](http://www.uet-civil.edu.pk)

Sub Divisional Officer  
Buildings Sub Division, Sargodha

Test Performed By: Dr. /Engr. Bilal A. Khokhar

Client Reference: 63/SGD

SOM Lab

Ref: 346 (Page-1/2)

Dated: 11-02-2019

Dated: 22-02-2019

Test: Tension Test

Test Specification:

ASTM-A-615

Deformed

Gauge Length: 8 inch

Sample Type:

Bar

S.No.	Weight	Dia.		Area		Yield Load	Ultimate Load	Yield Stress		Ult. Stress		Elongation	Gauge Length	%age Elongation	Remarks
		Nominal	Calculated	Nominal	Calculated			(according to nominal area)	(according to measured area)	(according to nominal area)	(according to measured area)				
	lb/ft	#	in	in <sup>2</sup>	in <sup>2</sup>	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	0.683	4	0.506	0.20	0.201	5.19	8.07	57220	56930	89030	88590	1.10	8.0	13.8	
2	0.685	4	0.506	0.20	0.201	5.22	8.05	57560	57270	88800	88360	1.30	8.0	16.3	
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**BEND TEST:**

--	No Bend test performed	<b>Note:-  Only Two Samples Received and Tested</b>

Note: Please always confirm the results of above report on web [www.uet-civil.edu.pk](http://www.uet-civil.edu.pk)



Sub Divisional Officer  
Buildings Sub Division, Sargodha

Test Performed By: Dr. /Engr. Bilal A. Khokhar

Client Reference: 63/SGD

SOM Lab

Ref: 346 (Page-2/2)

Dated: 11-02-2019

Dated: 22-02-2019

Test: Tension Test

Test Specification:

ASTM-A-615

Deformed

Gauge Length: 8 inch

Sample Type:

Bar

S.No.	Weight	Dia.		Area		Yield Load	Ultimate Load	Yield Stress		Ult. Stress		Elongation	Gauge Length	%age Elongation	Remarks
		Nominal	Calculated	Nominal	Calculated			(according to nominal area)	(according to measured area)	(according to nominal area)	(according to measured area)				
	lb/ft	#	in	in <sup>2</sup>	in <sup>2</sup>	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	1.510	6	0.752	0.44	0.444	11.16	16.97	55950	55450	85070	84310	1.40	8.0	17.5	
2	1.511	6	0.752	0.44	0.444	11.03	16.87	55290	54790	84560	83800	1.30	8.0	16.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
5	0.705	4	0.513	0.20	0.207	6.70	8.79	73850	71360	96900	93620	1.20	8.0	15.0	
6	0.668	4	0.500	0.20	0.196	6.65	8.92	73290	74790	98360	100370	1.10	8.0	13.8	
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**BEND TEST:**

--	No Bend test performed	<b>Note:- Only Two Samples Received and Tested</b>

Note: Please always confirm the results of above report on web [www.uet-civil.edu.pk](http://www.uet-civil.edu.pk)

Noor Ahmed Choudhry  
Chief Executive, Authorized Signatory

Test Performed By: Dr. /Engr. M RizwanRiaz

Client Reference: nil

SOM Lab

Ref: 347 (Page-1/1)

Dated: 01-01-2019

Dated: 25-02-2019

Test: Tension Test & Bend Test

Test Specification:

ASTM-A-615

Deformed

Gauge Length: 8 inch

Sample Type:

Bar

S.No.	Weight	Dia.		Area		Yield Load	Ultimate Load	Yield Stress		Ult. Stress		Elongation	Gauge Length	%age Elongation	Remarks
		Nominal	Calculated	Nominal	Calculated			(according to nominal area)	(according to measured area)	(according to nominal area)	(according to measured area)				
	lb/ft	#	in	in <sup>2</sup>	in <sup>2</sup>	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	2.627	8	0.991	0.79	0.772	30.65	37.97	85570	87570	106010	108480	1.00	8.0	12.5	
2	2.640	8	0.994	0.79	0.776	30.60	38.33	85430	86970	107000	108930	1.10	8.0	13.8	
3	1.426	6	0.730	0.44	0.419	15.57	19.52	78020	81930	97850	102750	1.00	8.0	12.5	
4	1.425	6	0.730	0.44	0.419	15.95	19.83	79970	83970	99380	104360	1.20	8.0	15.0	
5	0.651	4	0.493	0.20	0.191	7.56	9.25	83410	87340	101960	106760	1.10	8.0	13.8	
6	0.651	4	0.493	0.20	0.191	7.67	9.23	84530	88520	101730	106520	1.00	8.0	12.5	
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**BEND TEST:**

# 8	Sample bend through 180 degrees Satisfactorily without any crack	<b>Note:-  Only Nine Samples Received and Tested</b>
# 6	Sample bend through 180 degrees Satisfactorily without any crack	
# 4	Sample bend through 180 degrees Satisfactorily without any crack	

Note: Please always confirm the results of above report on web [www.uet-civil.edu.pk](http://www.uet-civil.edu.pk)

Ajaz Ahmad Gondal

Test Performed By: Dr. /Engr. M RizwanRiaz

Acting Chief Resident Engineer, TrimuPanjnad Barrages Consultants(TPB Consultants)

Client Reference: TPBC/CRE/1624

SOM Lab Ref: 348(Page-1/1)

Dated: 24-02-2019

Dated: 25-02-2019

Test: Tension Test & Bend Test

Test Specification:

ASTM-A-615

Gauge Length: 8 inch

Sample Type:

Deformed Bar( Fazal Steel Islamabad)

S.No.	Weight	Dia.		Area		Yield Load	Ultimate Load	Yield Stress		Ult. Stress		Elongation	Gauge Length	%age Elongation	Remarks
		Nominal	Calculated	Nominal	Calculated			(according to nominal area)	(according to measured area)	(according to nominal area)	(according to measured area)				
	lb/ft	#	in	in <sup>2</sup>	in <sup>2</sup>	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	0.659	4	0.497	0.20	0.194	6.29	9.50	69360	71500	104770	108010	1.20	8.0	15.0	
2	0.661	4	0.497	0.20	0.194	6.07	9.33	66890	68950	102860	106040	1.40	8.0	17.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

**BEND TEST:**

# 4	Sample bend through 180 degrees Satisfactorily without any crack	<b>Note:-  Only Three Samples Received and Tested</b>

Note: Please always confirm the results of above report on web [www.uet-civil.edu.pk](http://www.uet-civil.edu.pk)

Manager Purchase  
Bismillah Developers, Lahore

Test Performed By: Dr. /Engr. M RizwanRiaz

Client Reference: Nil  
Dated: 25-02-2019  
Test: Tension Test

SOM Lab  
Ref: 351(Page-1/1)  
Dated: 25-02-2019

Gauge Length: 8 inch

Test Specification: ASTM-A-615  
Deformed  
Bar

S.No.	Weight	Dia.		Area		Yield Load	Ultimate Load	Yield Stress		Ult. Stress		Elongation	Gauge Length	%age Elongation	Remarks
		Nominal	Calculated	Nominal	Calculated			(according to nominal area)	(according to measured area)	(according to nominal area)	(according to measured area)				
	lb/ft	#	in	in <sup>2</sup>	in <sup>2</sup>	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	2.635	8	0.993	0.79	0.774	27.19	37.07	75900	77470	103500	105640	1.50	8.0	18.8	
2	2.632	8	0.992	0.79	0.773	27.01	35.85	75420	77070	100090	102290	1.50	8.0	18.8	
3	0.664	4	0.498	0.20	0.195	7.36	8.72	81160	83240	96110	98580	1.30	8.0	16.3	
4	0.665	4	0.498	0.20	0.195	7.65	8.79	84310	86470	96900	99380	1.20	8.0	15.0	
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**BEND TEST:**

--	No Bend test performed	<b>Note:-  Only Four Samples Received and Tested</b>

Note: Please always confirm the results of above report on web [www.uet-civil.edu.pk](http://www.uet-civil.edu.pk)

Project Manager (Broadway Heights)

Test Performed By: Dr. /Engr. Bilal A Khokhar

Q - Links Property Management Pvt. Ltd. Lahore

Client Reference: QLPM-BHI-07

SOM Lab

Ref: 352(Page-1/1)

Dated: 25-02-2019

Dated: 25-02-2019

Test: Tension Test

Test Specification:

ASTM-A-615

Deformed

Gauge Length: 8 inch

Sample Type:

Bar

S.No.	Weight	Dia.		Area		Yield Load	Ultimate Load	Yield Stress		Ult. Stress		Elongation	Gauge Length	%age Elongation	Remarks
		Nominal	Calculated	Nominal	Calculated			(according to nominal area)	(according to measured area)	(according to nominal area)	(according to measured area)				
	lb/ft	#	in	in <sup>2</sup>	in <sup>2</sup>	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	2.580	8	0.982	0.79	0.758	26.78	34.10	74760	77920	95190	99210	1.20	8.0	15.0	
2	1.591	6	0.772	0.44	0.468	15.97	21.12	80070	75280	105870	99540	1.30	8.0	16.3	
3	0.657	4	0.496	0.20	0.193	6.32	8.48	69700	72220	93530	96920	1.10	8.0	13.8	
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-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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**BEND TEST:**

--	No Bend test performed	<b>Note:- Only Three Samples Received and Tested</b>

Note: Please always confirm the results of above report on web [www.uet-civil.edu.pk](http://www.uet-civil.edu.pk)

Project Manager (Broadway Heights)

Test Performed By: Dr. /Engr. Bilal A Khokhar

Q - Links Property Management Pvt. Ltd. Lahore

Client Reference: QLPM-BHI-07

SOM Lab

Ref: 352(Page-1/1)

Dated: 25-02-2019

Dated: 25-02-2019

Test: Tension Test

Test Specification:

ASTM-A-615

Deformed

Gauge Length: 8 inch

Sample Type:

Bar

S.No.	Weight	Dia.		Area		Yield Load	Ultimate Load	Yield Stress		Ult. Stress		Elongation	Gauge Length	%age Elongation	Remarks
		Nominal	Calculated	Nominal	Calculated			(according to nominal area)	(according to measured area)	(according to nominal area)	(according to measured area)				
	lb/ft	#	in	in <sup>2</sup>	in <sup>2</sup>	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	2.580	8	0.982	0.79	0.758	26.78	34.10	74760	77920	95190	99210	1.20	8.0	15.0	
2	1.591	6	0.772	0.44	0.468	15.97	21.12	80070	75280	105870	99540	1.30	8.0	16.3	
3	0.657	4	0.496	0.20	0.193	6.32	8.48	69700	72220	93530	96920	1.10	8.0	13.8	
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**BEND TEST:**

--	No Bend test performed	<b>Note:-  Only Three Samples Received and Tested</b>

Note: Please always confirm the results of above report on web [www.uet-civil.edu.pk](http://www.uet-civil.edu.pk)

Christian Fellowship of  
Pakistan  
Lahore

Test Performed By: Dr. /Engr. Bilal A Khokhar

Client Reference: nil

SOM Lab

Ref: 353(Page-1/1)

Dated: 25-02-2019

Dated: 25-02-2019

Test: Tension Test & Bend Test

Test Specification:

ASTM-A-615

Deformed

Gauge Length: 8 inch

Sample Type:

Bar

S.No.	Weight	Dia.		Area		Yield Load	Ultimate Load	Yield Stress		Ult. Stress		Elongation	Gauge Length	%age Elongation	Remarks
		Nominal	Calculated	Nominal	Calculated			(according to nominal area)	(according to measured area)	(according to nominal area)	(according to measured area)				
	lb/ft	#	in	in <sup>2</sup>	in <sup>2</sup>	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	2.671	8	1.000	0.79	0.785	32.31	41.15	90210	90790	114890	115620	1.00	8.0	12.5	
2	1.485	6	0.745	0.44	0.436	14.37	17.91	72050	72710	89780	90600	1.40	8.0	17.5	
3	0.691	4	0.508	0.20	0.203	7.75	9.84	85430	84170	108480	106870	1.00	8.0	12.5	
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**BEND TEST:**

# 8	Sample bend through 180 degrees Satisfactorily without any crack	<b>Note:-  Only Six Samples Received and Tested</b>
# 6	Sample bend through 180 degrees Satisfactorily without any crack	
# 4	Sample bend through 180 degrees Satisfactorily without any crack	

Note: Please always confirm the results of above report on web [www.uet-civil.edu.pk](http://www.uet-civil.edu.pk)

Deputy Director (Q.C.D)  
WASA, LDA, Lahore

Test Performed By: Dr. /Engr. M RizwanRiaz

Client Reference: QCD/ 157

SOM Lab 354 (Page-

Ref: 1/1)

Dated: 22-02-2019

Dated: 25-02-2019

Test: Tension Test & Bend Test

Test Specification:

ASTM-A-615

Guage Length: 8 inch

Sample Type:

Deformed Bar

S.No.	Weight	Dia.		Area		Yield Load	Ultimate Load	Yield Stress		Ult. Stress		Elongation	Gauge Length	%age Elongation	Remarks
		Nominal	Calculated	Nominal	Calculated			(according to nominal area)	(according to measured area)	(according to nominal area)	(according to measured area)				
	lb/ft	#	in	in <sup>2</sup>	in <sup>2</sup>	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	0.604	4	0.476	0.20	0.178	5.37	8.18	59240	66560	90150	101300	1.00	8.0	12.5	
2	0.603	4	0.475	0.20	0.177	5.22	8.10	57560	65030	89370	100980	1.00	8.0	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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**BEND TEST:**

# 4	Sample bend through 180 degrees Satisfactorily without any crack	<b>Note:-</b>  <b>Only Three Samples Received and Tested</b>

Note: Please always confirm the results of above report on web [www.uet-civil.edu.pk](http://www.uet-civil.edu.pk)