

Irfan Siddique

Test Performed By: Dr. /Engr. Nauman Khurram

For Building Standards Material Testing, Quality Control & Geotechnical Services, Lahore

Client Reference: GT/LTR/190506-035

Dated: 06-05-2019

SOM Lab Ref: CED/SOM/783 (Page-1/1)

Dated: 07-05-2019

Test: Tension Test

Test Specification: BS-4449

Sample Type: Tor 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	3.868	25	25.05	491	493	228.50	301.50	465	464	614	612	10.0	125	8.0	
2	3.940	25	25.28	491	502	211.50	275.20	431	422	561	549	12.5	125	10.0	
3	2.058	20	18.27	314	262	102.50	128.20	326	391	408	489	15.0	100	15.0	
4	2.147	20	18.66	314	274	103.00	131.00	328	377	417	479	17.5	100	17.5	
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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)

Ajaz Ahmad Gondal

Test Performed By:

Dr. /Engr.

Nauman  
Khurram

Acting Chief Resident Engineer, Trimu Panjnad Barrages Consultants(TPB Consultants)

Client Reference: TPBC/CRE/1774

SOM Lab Ref: 775(Page-1/1)

Dated: 03-05-2019

Dated: 07-05-2019

Test: Tension Test &amp; 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	2.717	8	1.008	0.79	0.798	29.17	37.79	81450	80630	105490	104440	1.30	8.0	16.3	
2	2.712	8	1.007	0.79	0.797	26.83	36.49	74900	74250	101880	100990	1.30	8.0	16.3	
3	1.518	6	0.754	0.44	0.446	16.99	20.51	85180	84030	102800	101420	1.00	8.0	12.5	
4	1.492	6	0.747	0.44	0.438	14.63	18.88	73320	73660	94630	95060	1.20	8.0	15.0	
5	0.665	4	0.498	0.20	0.195	6.44	9.84	71040	72870	108480	111260	1.30	8.0	16.3	
6	0.667	4	0.500	0.20	0.196	6.47	9.99	71380	72840	110160	112410	1.20	8.0	15.0	
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**BEND TEST:**

# 8	Sample bend through 180 degrees Satisfactorily without any crack	<b>Note:-</b>  <b>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)

Maintenance Engineer-IIV,  
University of The Punjab, Lahore

Test Performed By: Dr. /Engr. Nauman Khokhar

Client Reference: D-799-ME-II

SOM Lab

Ref: 776(Page-1/1)

Dated: 09-04-2019

Dated: 07-05-2019

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	1.526	6	0.755	0.44	0.448	15.87	20.51	79560	78140	102800	100970	1.10	8.0	13.8	
2	1.523	6	0.755	0.44	0.448	16.36	20.25	82010	80540	101530	99710	1.30	8.0	16.3	
3	0.687	4	0.507	0.20	0.202	7.67	9.25	84530	83700	101960	100950	1.00	8.0	12.5	
4	0.690	4	0.508	0.20	0.203	7.67	9.25	84530	83280	101960	100450	0.90	8.0	11.3	
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**BEND TEST:**

# 6	Sample bend through 180 degrees Satisfactorily without any crack	<b>Note:-  Only Five 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)

Arsalan Arshad

Project Manager, Depac (Const. of Dr. Maqbool Ahmad Block King Edward Medical University (KEMU) Lahore)

Test Performed By:

Dr. /Engr. Nauman Khurram

Client Reference: T-18/03/18

SOM Lab Ref: 777 (Page-1/1)

Dated: 07-05-2019

Dated: 07-05-2019

Test: Tension Test & Bend Test

Test Specification:

ASTM-A-615

Gauge 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	2.711	8	1.007	0.79	0.797	27.06	35.32	75560	74890	98610	97740	1.50	8.0	18.8	
2	1.489	6	0.747	0.44	0.438	15.87	21.53	79560	79920	107910	108410	1.10	8.0	13.8	
3	0.671	4	0.501	0.20	0.197	6.65	8.87	73290	74410	97800	99290	1.20	8.0	15.0	
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Witnessed By: Ahmad Hasan, Tech - Zone Consultants

**BEND TEST:**

# 8	Sample bend through 180 degrees Satisfactorily without any crack
# 6	Sample bend through 180 degrees Satisfactorily without any crack
# 4	Sample bend through 180 degrees Satisfactorily without any crack

**Note:-**  
**Only Six 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)

Muhammad Shahazad  
Project Coordinator, Sum Incorporated, Lahore

Test Performed By: Dr. /Engr. Nauman Khurram

Client Reference: nil

SOM Lab

Ref: 778 (Page-1/1)

Dated: nil

Dated: 07-05-2019

Test: Tension Test & Bend Test

Test Specification:

ASTM-A-615

Gauge Length: 8 inch

Sample Type:

Deformed Bar(AFCO 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	2.571	8	0.981	0.79	0.756	28.41	34.42	79310	82880	96100	100430	1.20	8.0	15.0	
2	2.650	8	0.996	0.79	0.779	27.78	34.35	77550	78640	95900	97260	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 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)

Abdul Ghafar  
Project Manager Liberty Builders, Lahore

Test Performed By: Dr. /Engr. S Asad Ali Gillani

Client Reference: CONC - 20190507

SOM Lab

Ref: 779(Page-1/1)

Dated: 07-05-2019

Dated: 07-05-2019

Test: Tension Test & Bend Test

Test Specification:

ASTM-A-615

Gauge Length: 8 inch

Sample Type:

Deformed Bar( Model 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	2.738	8	1.012	0.79	0.805	24.49	32.21	68360	67080	89930	88250	1.50	8.0	18.8	
2	2.582	8	0.983	0.79	0.759	21.30	29.10	59480	61910	81250	84570	1.30	8.0	16.3	
3	0.649	4	0.493	0.20	0.191	6.37	8.36	70260	73570	92180	96520	1.00	8.0	12.5	
4	0.658	4	0.496	0.20	0.193	6.37	8.51	70260	72810	93860	97270	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 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)

Engr. Muhammad Abdullah  
Assistant Engineer, B & W Department, U. E. T. Lahore

Test Performed By: Dr. /Engr.

S Asad Ali Gillani

Client Reference: B & W/AEN/919

SOM Lab

Ref: 780 (Page-1/1)

Dated: 07-05-2019

Dated: 07-05-2019

Test: Tension Test & Bend Test

Test Specification:

ASTM-A-615

Gauge 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	1.474	6	0.743	0.44	0.433	15.01	19.67	75210	76430	98610	100210	1.10	8.0	13.8	
2	1.467	6	0.741	0.44	0.431	15.11	19.62	75720	77310	98360	100410	1.20	8.0	15.0	
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**BEND TEST:**

# 6	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)

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

Test Performed By: Dr. /Engr. Nauman Khurram

Client Reference: QCD/ 353-54

SOM Lab Ref: 781 (Page-1/1)

Dated: 30-04-2019

Dated: 07-05-2019

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	0.566	4	0.460	0.20	0.166	5.32	9.48	58680	70700	104540	125950	0.90	8.0	11.3	
2	0.560	4	0.458	0.20	0.165	5.47	9.43	60370	73170	103980	126030	0.80	8.0	10.0	
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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)

Engr. Muhammad Abdullah  
Assistant Engineer, B & W Department, U. E. T. Lahore

Test Performed By: Dr. /Engr. Nauman Khurram

Client Reference: B & W/AEN/918

SOM Lab

Ref: 782 (Page-1/1)

Dated: 07-05-2019

Dated: 07-05-2019

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	0.645	4	0.492	0.20	0.190	7.19	8.87	79250	83420	97800	102940	1.00	8.0	12.5	
2	0.636	4	0.488	0.20	0.187	6.75	8.43	74420	79590	92960	99430	1.10	8.0	13.8	
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**BEND TEST:**

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

<b>Note: Please always confirm the results of above report on web <a href="http://www.uet-civil.edu.pk">www.uet-civil.edu.pk</a></b>		