

Director Projects  
 Innovative® Construction Company, Lahore

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

Client Reference: ICL/ISM/SKT/0419/03  
 SOM Lab Ref: CED/SOM/667(Page-1/1)  
 Test: Tension Test & Bend Test  
 Sample Type: Deformed Bar

Dated: 15-04-2019  
 Dated: 16-04-2019  
 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	2.480	20	20.06	314	316	159.20	209.70	507	504	667	664	27.5	200	13.8	
2	2.491	20	20.10	314	317	165.50	214.50	527	522	683	676	32.5	200	16.3	
3	1.560	16	15.91	201	199	106.20	131.20	528	535	653	661	32.5	200	16.3	
4	1.565	16	15.93	201	199	104.70	130.50	521	526	649	655	30.0	200	15.0	
5	0.896	12	12.05	113	114	60.20	75.00	532	528	663	658	30.0	200	15.0	
6	0.909	12	12.14	113	116	61.00	76.70	539	527	678	663	27.5	200	13.8	
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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)

The City School  
Burewala Campus

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

Client Reference: nil  
SOM Lab Ref: CED/SOM/671(Page-1/1)  
Test: Tension Test & Bend Test  
Sample Type: Deformed Bar

Dated: 15-04-2019  
Dated: 16-04-2019  
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	4.002	25	25.48	491	510	284.00	361.50	579	557	736	709	32.5	200	16.3	
2	3.939	25	25.28	491	502	281.50	357.50	573	561	728	713	30.0	200	15.0	
3	2.197	20	18.88	314	280	137.50	190.70	438	492	607	682	30.0	200	15.0	
4	2.288	20	19.27	314	292	137.00	191.00	436	470	608	656	32.5	200	16.3	
5	0.970	12	12.54	113	124	61.80	93.00	546	501	822	753	25.0	200	12.5	
6	0.983	12	12.63	113	125	69.60	95.50	615	556	844	763	27.5	200	13.8	
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**BEND TEST:**

25mm	Sample bend through 180 degrees Satisfactorily without any crack	<b>Note:-  Only Nine Samples Received and Tested</b>
20mm	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)

Abdul Ghafar  
Project Manager Liberty Builders, Lahore

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

Client Reference: CONC - 20190416

SOM Lab

Ref: 668(Page-1/1)

Dated: 16-04-2019

Dated: 16-04-2019

Test: Tension Test & Bend Test

Test Specification:

ASTM-A-615

Deformed Bar( AF, Steel)

Gauge Length: 8 inch

Sample Type:

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	0.682	4	0.505	0.20	0.200	8.36	9.68	92180	92180	106790	106790	1.00	8.0	12.5	
2	0.681	4	0.505	0.20	0.200	8.36	9.70	92180	92180	107010	107010	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>

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

Eng. Shahzad Munir  
Resident Engineer, G 3 Engineering Consultants (Pvt) Ltd. Lahore

Test Performed By: Dr. /Engr.

S. Asad Ali  
Gillani

Client Reference: G3/224/RE-4

Dated: 15-04-2019

Test: Tension Test & Bend Test

Test Specification:

SOM Lab

Ref: 669-(Page-1/1)

Dated: 16-04-2019

ASTM-A-615

Deformed

Bar

Gauge Length: 8 inch

Sample Type:

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	2.615	8	0.989	0.79	0.768	21.36	31.31	59620	61330	87420	89930	1.50	8.0	18.8	
2	2.650	8	0.996	0.79	0.779	22.48	34.40	62750	63640	96050	97400	1.60	8.0	20.0	
3	2.597	8	0.986	0.79	0.763	21.89	31.52	61100	63260	87990	91110	1.40	8.0	17.5	
4	2.664	8	0.998	0.79	0.783	21.89	31.62	61100	61650	88280	89070	1.30	8.0	16.3	
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**BEND TEST:**

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

Muddassar Rafique  
Beaconhouse School Sadiqabad Project.

Test Performed By: Dr. /Engr. Nauman Khurram

Client Reference: nil

SOM Lab

Ref: 670(Page-1/1)

Dated: nil

Dated: 16-04-2019

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	2.649	8	0.995	0.79	0.778	22.40	35.42	62520	63490	98890	100420	1.30	8.0	16.3	
2	2.679	8	1.001	0.79	0.787	22.48	35.34	62750	62990	98660	99040	1.50	8.0	18.8	
3	1.455	6	0.738	0.44	0.428	14.50	19.01	72660	74700	95290	97960	1.40	8.0	17.5	
4	1.470	6	0.742	0.44	0.432	14.63	19.13	73320	74680	95910	97680	1.30	8.0	16.3	
5	0.635	4	0.488	0.20	0.187	5.91	7.72	65200	69730	85100	91010	1.40	8.0	17.5	
6	0.640	4	0.489	0.20	0.188	6.22	8.15	68570	72950	89930	95670	1.30	8.0	16.3	
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Witnessed By: Muddassar Rafique

**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)