

Abdul Ghafar  
Project Manager Liberty Builders, Lahore

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

Client Reference: ST/UET/ 20210319-B

SOM Lab

Ref: 4080(Page-1/1)

Dated: 19-03-2021

Dated: 19-03-2021

Test: Tension Test & Bend Test

Test Specification:

ASTM-A-615

Gauge Length: 8 inch

Sample Type:

Deformed Bar( Batala Premium)

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	2.630	8	0.992	0.79	0.773	24.16	33.79	67450	68930	94340	96410	1.30	8.0	16.3	
2	2.632	8	0.992	0.79	0.773	23.63	33.51	65970	67420	93540	95600	1.40	8.0	17.5	
3	2.639	8	0.994	0.79	0.776	23.67	33.61	66080	67270	93830	95520	1.60	8.0	20.0	
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**BEND TEST:**

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

Maj Adnan khalid® (Dy Dir MTL)

Test Performed By:

Dr. /Engr.

S. Asad Ali  
Gillani

Const of PD House Sec-I, Rahber & Infra Dev Works of Prism-9- Pkg-01 Sec-R, (M/S DHA Const)

Client Reference: 408/241/E/Estb/Lab/53/12 & 1130

SOM Lab

Ref: 4079(Page-1/1)

Dated: 19-03-2021

Dated: 19-03-2021

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	1.467	6	0.741	0.44	0.431	14.55	19.93	72910	74440	99890	101980	1.20	8.0	15.0	
2	1.501	6	0.749	0.44	0.441	14.63	20.05	73320	73160	100500	100280	1.30	8.0	16.3	
3	0.680	4	0.505	0.20	0.200	7.24	9.53	79810	79810	105100	105100	1.10	8.0	13.8	
4	0.679	4	0.505	0.20	0.200	7.34	9.84	80940	80940	108480	108480	1.20	8.0	15.0	
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**BEND TEST:**

# 6	Sample bend through 180 degrees Satisfactorily without any crack	<b>Note:-</b>  Only Six Samples Received and Tested
# 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 Ghafar  
Project Manager Liberty Builders, Lahore

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

Client Reference: ST/UET/ 20210319-A

SOM Lab

Ref: 4077(Page-1/1)

Dated: 19-03-2021

Dated: 19-03-2021

Test: Tension Test & Bend Test

Test Specification:

ASTM-A-615

Gauge Length: 8 inch

Sample Type:

Deformed Bar( Batala Premium)

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	1.508	6	0.751	0.44	0.443	14.14	20.05	70870	70390	100500	99820	1.20	8.0	15.0	
2	1.510	6	0.752	0.44	0.444	13.58	19.62	68060	67450	98360	97470	1.00	8.0	12.5	
3	1.499	6	0.749	0.44	0.441	14.29	20.36	71640	71470	102040	101810	1.20	8.0	15.0	
4	0.658	4	0.496	0.20	0.193	5.63	8.18	62050	64300	90150	93420	1.20	8.0	15.0	
5	0.664	4	0.498	0.20	0.195	5.68	8.21	62610	64220	90490	92810	1.40	8.0	17.5	
6	0.675	4	0.502	0.20	0.198	5.83	8.48	64300	64950	93530	94470	1.30	8.0	16.3	
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**BEND TEST:**

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

Shoukat Ali Rana  
Project Manager, Orbit Housing , Lahore

Test Performed By: Dr. /Engr.

S. Asad Ali  
Gillani

Client Reference: Nil

Dated: 19-03-2021

Test: Tension Test & Bend Test

Gauge Length: 8 inch

Test Specification:

Sample Type:

SOM Lab

Ref: 4077(Page-1/1)

Dated: 19-03-2021

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	0.652	4	0.494	0.20	0.192	6.32	8.99	69700	72600	99150	103280	1.50	8.0	18.8	
2	0.654	4	0.494	0.20	0.192	6.34	8.99	69920	72830	99150	103280	1.30	8.0	16.3	
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**BEND TEST:**

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

Shoukat Ali Rana  
Project Manager, Orbit Housing , (Lahore)

Test Performed By: Dr. /Engr.

S. Asad Ali  
Gillani

Client Reference: Nil

Dated: 19-03-2021

Test: Tension Test & Bend Test

Gauge Length: 8 inch

Test Specification:

Sample Type:

SOM Lab

Ref: 4076(Page-1/1)

Dated: 19-03-2021

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	2.616	8	0.990	0.79	0.769	24.33	32.18	67930	69790	89840	92300	1.60	8.0	20.0	
2	2.587	8	0.984	0.79	0.760	23.62	31.96	65940	68540	89220	92740	1.50	8.0	18.8	
3	0.661	4	0.497	0.20	0.194	6.37	8.87	70260	72430	97800	100820	1.10	8.0	13.8	
4	0.673	4	0.502	0.20	0.198	6.80	9.28	74980	75740	102290	103330	1.10	8.0	13.8	
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**BEND TEST:**

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

Muteen Zafar Malik

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

Project Engineer, MA Engineering Services, Lahore (Project: Engro Enfrashare B25 Towers)

**Client Reference:** MA/UET/LHR/006

**Dated:** 19-03-2021

**SOM Lab Ref:** CED/SOM/4082-4083(Page-1/1)

**Dated:** 19-03-2021

**Test:** Tension and Bend Test

**Test Specification:** ASTM-A 615

**Sample Type:** Deformed Bar

**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	3.960	25	25.33	491	504	254.70	346.70	519	506	706	688	30.0	200	15.0	
2	2.206	20	18.92	314	281	125.00	185.70	398	445	591	661	35.0	200	17.5	
3	1.529	16	15.75	201	195	90.70	124.50	451	466	619	640	32.5	200	16.3	
4	0.978	12	12.60	113	125	59.70	80.50	528	480	712	647	25.0	200	12.5	
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**BEND TEST:**

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

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

Muteen Zafar Malik

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

Project Engineer, MA Engineering Services, Lahore (Project: Engro Enfrashare B25 Towers)

**Client Reference:** MA/UET/LHR/007

**Dated:** 19-03-2021

**SOM Lab Ref:** CED/SOM/4081(Page-1/1)

**Dated:** 19-03-2021

**Test:** Tension and Bend Test

**Test Specification:** ASTM-A 615

**Sample Type:** Deformed Bar

**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	3.923	25	25.23	491	500	242.50	337.00	494	485	687	674	32.5	200	16.3	
2	2.220	20	18.98	314	283	126.20	186.00	402	447	592	658	37.5	200	18.8	
3	1.549	16	15.85	201	197	87.70	128.70	436	445	640	653	32.5	200	16.3	
4	0.976	12	12.58	113	124	56.20	78.70	497	453	696	634	32.5	200	16.3	
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**BEND TEST:**

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

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