

Abdul Ghafar  
Project Manager Liberty Builders, Lahore

Test Performed By: Dr. /Engr. M Yousaf

Client Reference: ST/UET/ 20210305-B  
Dated: 05-03-2021  
Test: Tension Test  
Gauge Length: 8 inch

SOM Lab 3965(Page-1/1)  
Ref: 1/1  
Dated: 05-03-2021  
ASTM-A-615  
Sample Type: Deformed Bar( Batala- 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	0.674	4	0.502	0.20	0.198	5.78	8.79	63740	64380	96900	97880	1.00	8.0	12.5	
2	0.676	4	0.503	0.20	0.199	5.79	8.97	63850	64170	98920	99420	1.20	8.0	15.0	
3	0.670	4	0.501	0.20	0.197	5.76	8.87	63510	64480	97800	99290	1.10	8.0	13.8	
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**BEND TEST:**

# 4	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)

Muhammad Saleem  
Project Director (North-3) PAEC, Chashma

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

Client Reference: WASO-P(KCI)LOT-002(323)/2020

SOM Lab 3958(Page-

Ref: 1/1)

Dated: 01-03-2021

Dated: 04-03-2021

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	1.503	6	0.750	0.44	0.442	13.51	19.95	67700	67400	99990	99540	1.70	8.0	21.3	
2	1.518	6	0.754	0.44	0.446	13.61	20.10	68210	67300	100760	99400	1.60	8.0	20.0	
3	0.666	4	0.500	0.20	0.196	6.27	9.04	69130	70540	99710	101740	1.30	8.0	16.3	
4	0.670	4	0.501	0.20	0.197	6.37	9.09	70260	71330	100270	101800	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 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)

Tameer Construction (Pvt) Ltd  
Lahore

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

Client Reference: TCPL/CONST-63D/1079/1785

SOM Lab 3959(Page-

Ref: 1/1)

Dated: 01-03-2021

Dated: 04-03-2021

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	2.650	8	0.996	0.79	0.779	24.13	34.48	67360	68310	96250	97610	1.40	8.0	17.5	
2	2.679	8	1.001	0.79	0.787	26.61	36.19	74280	74560	101030	101410	1.40	8.0	17.5	
3	1.502	6	0.749	0.44	0.441	14.04	18.62	70360	70200	93350	93140	1.20	8.0	15.0	
4	1.532	6	0.757	0.44	0.450	15.21	19.59	76240	74540	98210	96020	1.10	8.0	13.8	
5	0.685	4	0.506	0.20	0.201	6.17	9.27	68010	67670	102180	101670	1.30	8.0	16.3	
6	0.669	4	0.501	0.20	0.197	6.20	9.33	68350	69390	102860	104420	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>  Only Nine Samples Received and Tested
# 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)

Project Manager,  
 Premier Developer, Lyallpur Galleria Faisalabad

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

Client Reference: -LG-FSD

SOM Lab 3960(Page-

Ref: 1/1)

Dated: 02-03-2021

Dated: 04-03-2021

Test: Tension 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	2.595	8	0.986	0.79	0.763	29.58	37.16	82590	85510	103730	107400	1.20	8.0	15.0	
2	2.577	8	0.982	0.79	0.757	28.64	36.60	79970	83450	102170	106620	1.00	8.0	12.5	
3	1.487	6	0.746	0.44	0.437	12.64	17.99	63360	63800	90180	90800	1.30	8.0	16.3	
4	1.468	6	0.741	0.44	0.431	12.39	17.69	62080	63380	88650	90500	1.40	8.0	17.5	
5	0.601	4	0.475	0.20	0.177	5.50	7.46	60700	68590	82290	92980	1.20	8.0	15.0	
6	0.591	4	0.471	0.20	0.174	5.68	7.44	62610	71970	82060	94320	1.30	8.0	16.3	
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**BEND TEST:**

--	No Bend test performed	<b>Note:-</b>  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)

Abdul Ghafar  
Project Manager Liberty Builders, Lahore

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

Client Reference: ST/UET/ 20210304  
Dated: 04-03-2021  
Test: Tension Test  
Gauge Length: 8 inch

SOM Lab 3957(Page-1/1)  
Ref: 1/1  
Dated: 04-03-2021  
ASTM-A-615  
Sample Type: Deformed Bar( AF & SJ- 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	2.428	8	0.953	0.79	0.714	23.96	31.50	66880	74000	87940	97300	1.50	8.0	18.8	SJ
2	2.666	8	0.998	0.79	0.783	25.13	34.02	70150	70780	94970	95810	1.70	8.0	21.3	SJ
3	2.445	8	0.957	0.79	0.719	26.47	34.10	73910	81210	95190	104590	1.20	8.0	15.0	AF
4	0.660	4	0.497	0.20	0.194	7.37	9.40	81270	83790	103640	106850	0.90	8.0	11.3	AF
5	0.671	4	0.501	0.20	0.197	7.71	9.58	84980	86280	105670	107270	0.90	8.0	11.3	
6	0.662	4	0.498	0.20	0.195	7.24	9.40	79810	81860	103640	106300	1.00	8.0	12.5	
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**BEND TEST:**

# 8	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)

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

Rana Awais  
Technical Director  
SUNERGIES, Lahore

**Client Reference:** Nil

**Dated:** 04-03-2021

**SOM Lab Ref:** CED/SOM/3962(Page-1/1)

**Dated:** 04-03-2021

**Test Type:** Hardness Test

**Sample Type:** Aluminum ( C Type & U Type Chanal)

**Hardness Test Details:**

**Machine used:** Avery Rockwell Hardness Testing Machine

(Minor Load: 10 Kgf Major Load: 50.0 kgf Scale: A)

Hardness Test Results

Sample No.	Sample Type	Hardness
1	Aluminum C Type	HR – 9.666 – A
2	Aluminum U Type	HR – 12.666 – A

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

