Khalid Bashir **Test Performed By:** Dr. /Engr. **Numan Khurram**

Ittefaq Building Solutions (Pvt) Ltd. Lahore (Project: Barrett Hodgson University Toba Tek Singh)

Client Reference: IBS/BHU/ST11 **Dated:** 19-03-2019

SOM Lab Ref: CED/SOM/493(Page-1/1) **Dated:** 20-03-2019

Test: Tension Test **Test Specification:** ASTM-A-615

Sample Type: M S 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^2	mm^2	kN	kN	MPa	MPa	MPa	MPa	mm	mm	%	
1	2.214	19	18.95	284	282	155.50	199.00	548	552	702	706	2.5	200	1.3	D-6203
2	2.222	19	18.98	284	283	154.00	199.50	543	545	704	705	25.0	200	12.5	D-6203
3	1.022	13	12.87	133	130	71.70	90.20	540	551	680	693	25.0	200	12.5	C-3683
4	1.024	13	12.89	133	130	71.20	90.20	536	547	680	692	25.0	200	12.5	C-3683
5	0.974	13	12.57	133	124	71.20	88.00	536	575	663	710	30.0	200	15.0	D-5062
6	0.974	13	12.57	133	124	71.50	87.70	539	577	661	708	22.5	200	11.3	D-5062
7	0.980	13	12.61	133	125	71.50	90.70	539	573	683	727	27.5	200	13.8	B-5098
8	0.981	13	12.62	133	125	71.20	90.50	536	570	682	725	22.5	200	11.3	B-5098
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Witnessed By: Kashif Ramzan

BEND TEST:

--	No Bend test performed

Note:-

Only Eight Samples Received and Tested

Note: Please always confirm the results of above report on web www.uet-civil.edu.pk

Khalid Bashir **Test Performed By:** Dr. /Engr. **Numan Khurram**

Ittefaq Building Solutions (Pvt) Ltd. Lahore (Project: Barrett Hodgson University Toba Tek Singh)

Client Reference: IBS/BHU/ST11 **Dated:** 19-03-2019

SOM Lab Ref: CED/SOM/493(Page-1/1) **Dated:** 20-03-2019

Test: Tension Test **Test Specification:** ASTM-A-615

Sample Type: M S 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^2	mm^2	kN	kN	MPa	MPa	MPa	MPa	mm	mm	%	
1	2.214	19	18.95	284	282	155.50	199.00	548	552	702	706	2.5	200	1.3	D-6203
2	2.222	19	18.98	284	283	154.00	199.50	543	545	704	705	25.0	200	12.5	D-6203
3	1.022	13	12.87	133	130	71.70	90.20	540	551	680	693	25.0	200	12.5	C-3683
4	1.024	13	12.89	133	130	71.20	90.20	536	547	680	692	25.0	200	12.5	C-3683
5	0.974	13	12.57	133	124	71.20	88.00	536	575	663	710	30.0	200	15.0	D-5062
6	0.974	13	12.57	133	124	71.50	87.70	539	577	661	708	22.5	200	11.3	D-5062
7	0.980	13	12.61	133	125	71.50	90.70	539	573	683	727	27.5	200	13.8	B-5098
8	0.981	13	12.62	133	125	71.20	90.50	536	570	682	725	22.5	200	11.3	B-5098
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Witnessed By: Kashif Ramzan

BEND TEST:

--	No Bend test performed

Note:-

Only Eight Samples Received and Tested

Note: Please always confirm the results of above report on web www.uet-civil.edu.pk

Engr. Syed Mujahid Hussain Naeem **Test Performed By:** **Dr. /Engr.** **Numan Khurram**

Resident Engineer -II, Zeeruk International (Pvt) Ltd. (Lahore Sialkot Motorway Project)

Client Reference: **LSM/RE-II/St/19/109** **Dated:** **19-03-2019**

SOM Lab Ref: **CED/SOM/496 (Page-1/6)** **Dated:** **20-03-2019**

Test: **Tension Test & Bend Test** **Test Specification:** **ASTM-A-615**

Sample Type: **Deformed Bar(FF 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^2	mm^2	kN	kN	MPa	MPa	MPa	MPa	mm	mm	%	
1	3.843	25	24.98	491	490	244.50	343.70	498	499	700	702	32.5	200	16.3	
2	3.845	25	24.97	491	490	244.70	344.00	498	500	701	703	30.0	200	15.0	
3	3.855	25	25.01	491	491	244.20	342.70	497	498	698	698	27.5	200	13.8	
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BEND TEST:

25mm	Sample bend through 180 degrees Satisfactorily without any crack

Note:-

Only Four Samples Received and Tested

Note: Please always confirm the results of above report on web www.uet-civil.edu.pk

Engr. Syed Mujahid Hussain Naeem **Test Performed By:** **Dr. /Engr.** **Numan Khurram**

Resident Engineer -II, Zeeruk International (Pvt) Ltd. (Lahore Sialkot Motorway Project)

Client Reference: **LSM/RE-II/St/19/109** **Dated:** **19-03-2019**

SOM Lab Ref: **CED/SOM/496 (Page-2/6)** **Dated:** **20-03-2019**

Test: **Tension Test & Bend Test** **Test Specification:** **ASTM-A-615**

Sample Type: **Deformed Bar(Mughal 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^2	mm^2	kN	kN	MPa	MPa	MPa	MPa	mm	mm	%	
1	3.972	25	25.38	491	506	251.00	358.50	511	497	730	709	30.0	200	15.0	
2	3.990	25	25.44	491	508	239.00	304.00	487	471	619	599	27.5	200	13.8	
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BEND TEST:

25mm	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

Engr. Syed Mujahid Hussain Naeem **Test Performed By:** **Dr. /Engr.** **Numan Khurram**

Resident Engineer -II, Zeeruk International (Pvt) Ltd. (Lahore Sialkot Motorway Project)

Client Reference: **LSM/RE-II/St/19/109** **Dated:** **19-03-2019**

SOM Lab Ref: **CED/SOM/496 (Page-3/6)** **Dated:** **20-03-2019**

Test: **Tension Test & Bend Test** **Test Specification:** **ASTM-A-615**

Sample Type: **Deformed Bar(AF 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^2	mm^2	kN	kN	MPa	MPa	MPa	MPa	mm	mm	%	
1	3.995	25	25.46	491	509	268.70	333.50	547	528	679	656	32.5	200	16.3	
2	4.067	25	25.68	491	518	274.00	337.20	558	529	687	651	32.5	200	16.3	
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BEND TEST:

25mm	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

Engr. Syed Mujahid Hussain Naeem **Test Performed By:** **Dr. /Engr.** **Numan Khurram**

Resident Engineer -II, Zeeruk International (Pvt) Ltd. (Lahore Sialkot Motorway Project)

Client Reference: **LSM/RE-II/St/19/109** **Dated:** **19-03-2019**

SOM Lab Ref: **CED/SOM/496 (Page-4/6)** **Dated:** **20-03-2019**

Test: **Tension Test & Bend Test** **Test Specification:** **ASTM-A-615**

Sample Type: **Deformed Bar(Moiz 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^2	mm^2	kN	kN	MPa	MPa	MPa	MPa	mm	mm	%	
1	3.849	25	24.98	491	490	239.20	335.70	487	489	684	686	35.0	200	17.5	
2	3.870	25	25.06	491	493	241.50	336.70	492	490	686	683	40.0	200	20.0	
3	3.837	25	24.95	491	489	239.00	334.50	487	489	681	685	37.5	200	18.8	
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BEND TEST:

25mm	Sample bend through 180 degrees Satisfactorily without any crack

Note:-

Only Four Samples Received and Tested

Note: Please always confirm the results of above report on web www.uet-civil.edu.pk

Engr. Syed Mujahid Hussain Naeem **Test Performed By:** **Dr. /Engr.** **Numan Khurram**

Resident Engineer -II, Zeeruk International (Pvt) Ltd. (Lahore Sialkot Motorway Project)

Client Reference: **LSM/RE-II/St/19/109** **Dated:** **19-03-2019**

SOM Lab Ref: **CED/SOM/496 (Page-5/6)** **Dated:** **20-03-2019**

Test: **Tension Test & Bend Test** **Test Specification:** **ASTM-A-615**

Sample Type: **Deformed Bar(Mughal 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^2	mm^2	kN	kN	MPa	MPa	MPa	MPa	mm	mm	%	
1	1.551	16	15.88	201	198	108.00	137.50	537	546	684	695	27.5	200	13.8	
2	1.554	16	15.88	201	198	108.50	137.70	540	549	685	696	27.5	200	13.8	
3	1.548	16	15.85	201	197	108.00	137.70	537	548	685	699	27.5	200	13.8	
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BEND TEST:

16mm	Sample bend through 180 degrees Satisfactorily without any crack

Note:-

Only Four Samples Received and Tested

Note: Please always confirm the results of above report on web www.uet-civil.edu.pk

Engr. Syed Mujahid Hussain Naeem **Test Performed By:** **Dr. /Engr.** **Numan Khurram**

Resident Engineer -II, Zeeruk International (Pvt) Ltd. (Lahore Sialkot Motorway Project)

Client Reference: LSM/RE-II/St/19/109 **Dated:** 19-03-2019

SOM Lab Ref: CED/SOM/496 (Page-6/6) **Dated:** 20-03-2019

Test: Tension Test & Bend Test **Test Specification:** ASTM-A-615

Sample Type: Deformed Bar(Moiz 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^2	mm^2	kN	kN	MPa	MPa	MPa	MPa	mm	mm	%	
1	0.887	12	12.00	113	113	52.20	82.20	462	462	727	728	32.5	200	16.3	
2	0.890	12	12.02	113	113	52.00	81.70	460	459	722	721	30.0	200	15.0	
3	0.888	12	12.00	113	113	52.20	82.20	462	462	727	728	35.0	200	17.5	
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BEND TEST:

12mm	Sample bend through 180 degrees Satisfactorily without any crack

Note:-

Only Four Samples Received and Tested

Note: Please always confirm the results of above report on web www.uet-civil.edu.pk

Engr. Jaffar Rashid **Test Performed By:** **Dr. /Engr.** **Numan Khurram**

Project Manager, IZHAR Construction (Pvt) Ltd. Lahore(Proj: CCBL Ware House & Allied Works Phase-2)

Client Reference: **ICPL/CCBL/Lab/01** **Dated:** **20-03-2019**

SOM Lab Ref: **CED/SOM/497(Page-1/1)** **Dated:** **20-03-2019**

Test: **Tension Test & 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^2	mm^2	kN	kN	MPa	MPa	MPa	MPa	mm	mm	%	
1	2.224	6	18.98	#N/A	283	160.50	199.70	#N/A	568	#N/A	706	25.0	200	12.5	
2	1.539	5	15.80	#N/A	196	103.70	132.50	#N/A	529	#N/A	676	32.5	200	16.3	
3	0.975	4	12.58	#N/A	124	74.50	93.50	#N/A	600	#N/A	753	25.0	200	12.5	
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BEND TEST:

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:-

Only Six Samples Received and Tested

Note: Please always confirm the results of above report on web www.uet-civil.edu.pk

Colonel Azim Ilyas (Retd) **Test Performed By:** **Dr. /Engr.** **Numan Khurram**

Coordinator Secretary, Lahore Diocesan Board of Eduction

Client Reference: **COORD/124/45/BLDG** **SOM Lab Ref:** **487(Page-1/1)**

Dated: **19-03-2019** **Dated:** **20-03-2019**

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^2	in^2	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	1.464	6	0.740	0.44	0.430	15.72	20.00	78790	80620	100250	102580	1.50	8.0	18.8	
2	1.480	6	0.744	0.44	0.435	15.41	19.62	77260	78150	98360	99490	1.30	8.0	16.3	
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BEND TEST:

# 6	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

Creative Constructore
Gulberg, Lahore

Test Performed By: Dr. /Engr. **Numan Khurram**

Client Reference: nil
Dated: 19-03-2019

SOM Lab Ref: 488(Page-1/1)
Dated: 20-03-2019

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^2	in^2	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	1.474	6	0.743	0.44	0.433	14.39	19.93	72150	73310	99890	101510	1.10	8.0	13.8	
2	0.658	4	0.496	0.20	0.193	7.08	9.63	78130	80960	106230	110080	0.90	8.0	11.3	
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BEND TEST:

--	No Bend test performed

Note:-

Only Two Samples Received and Tested

Note: Please always confirm the results of above report on web www.uet-civil.edu.pk

Project Manager,
IZHAR Construction (Pvt) Ltd. Lahore

Test Performed By: **Dr. /Engr.** **Numan Khurram**

Client Reference: **ICPL/EC/037**
Dated: **20-03-2019**

SOM Lab Ref: **489(Page-1/1)**
Dated: **20-03-2019**

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^2	in^2	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	1.049	5	0.626	0.31	0.308	12.71	15.19	90440	91020	108060	108760	0.90	8.0	11.3	
2	1.048	5	0.626	0.31	0.308	12.66	15.41	90070	90660	109650	110370	0.90	8.0	11.3	
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BEND TEST:

# 5	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

Fairmay Investments **Test Performed By:** **Dr. /Engr.** **Numan Khurram**

76 C-1 Gulberg-III, Lahore

Client Reference: **nil** **SOM Lab Ref:** **490 (Page-1/1)**

Dated: **20-03-2019** **Dated:** **20-03-2019**

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^2	in^2	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	2.661	8	0.998	0.79	0.782	30.73	39.01	85800	86680	108910	110020	1.10	8.0	13.8	
2	0.651	4	0.493	0.20	0.191	6.14	9.48	67670	70860	104540	109470	1.10	8.0	13.8	
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BEND TEST:

# 4	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

ICON Construction Services, **Test Performed By:** **Dr. /Engr. Numan Khurram**

Engineer & Contractors (Const. of S. M. Farhad Residence at Lake City)

Client Reference: ICON/79 **SOM Lab Ref: 491 (Page-1/1)**

Dated: 20-03-2019 **Dated: 20-03-2019**

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^2	in^2	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	1.044	5	0.625	0.31	0.307	10.47	14.39	74480	75210	102400	103400	1.30	8.0	16.3	
2	1.044	5	0.625	0.31	0.307	10.52	14.39	74840	75580	102400	103400	1.10	8.0	13.8	
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BEND TEST:

--	No Bend test performed

Note:-

Only Two Samples Received and Tested

Note: Please always confirm the results of above report on web www.uet-civil.edu.pk

Sub Divisional Officer **Test Performed By:** **Dr. /Engr. Numan Khurram**

Buildings Sub Division, C. M. Sectt; Lahore

Client Reference: **SDO/CMS/669** **SOM Lab Ref:** **494 (Page-1/1)**

Dated: **09-03-2019** **Dated:** **20-03-2019**

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^2	in^2	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	0.608	4	0.477	0.20	0.179	5.63	7.29	62050	69330	80370	89800	1.10	8.0	13.8	
2	0.587	4	0.469	0.20	0.173	5.52	7.08	60930	70440	78130	90320	1.20	8.0	15.0	
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BEND TEST:

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

Note:-

Only Four Samples Received and Tested

Note: Please always confirm the results of above report on web www.uet-civil.edu.pk

Muhammad Shah Zaib **Test Performed By:** Dr. /Engr. **Numan Khurram**

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

Client Reference: **B & W/AEN/833** **SOM Lab Ref:** **495 (Page-1/1)**

Dated: **19-03-2019** **Dated:** **20-03-2019**

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^2	in^2	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	0.647	4	0.492	0.20	0.190	6.98	9.04	77000	81050	99710	104960	1.30	8.0	16.3	
2	0.651	4	0.493	0.20	0.191	6.75	8.58	74420	77920	94650	99110	1.10	8.0	13.8	
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BEND TEST:

# 4	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

Engr. Jaffar Rashid **Test Performed By:** **Dr. /Engr. Numan Khurram**
Project Manager, IZHAR Construction (Pvt) Ltd. Lahore(Proj: CCBL Ware House & Allied Works Phase-2)

Client Reference: **ICPL/CCBL/Lab/01** **SOM Lab Ref:** **497(Page-1/1)**
Dated: **20-03-2019** **Dated:** **20-03-2019**

Test: **Tension Test & Bend Test** **Test Specification:** **ASTM-A-615**
Gauge Length: **8 inch** **Sample Type:** **M S deformed**

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^2	in^2	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	1.494	6	0.748	0.44	0.439	16.36	20.36	82010	82200	102040	102270	1.00	8.0	12.5	
2	1.034	5	0.622	0.31	0.304	10.57	13.51	75210	76690	96090	97990	1.30	8.0	16.3	
3	0.655	4	0.494	0.20	0.192	7.59	9.53	83750	87240	105100	109480	1.00	8.0	12.5	
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BEND TEST:

# 6	Sample bend through 180 degrees Satisfactorily without any crack
# 5	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

LSM Food & Cold Storage
Lahore

Test Performed By: Dr. /Engr. Numan Khurram

Client Reference: nil
Dated: 18-03-2019

SOM Lab
Ref: 498 (Page-1/1)
Dated: 20-03-2019

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^2	in^2	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	2.625	8	0.991	0.79	0.771	22.99	32.59	64180	65760	90980	93220	1.40	8.0	17.5	
2	1.467	6	0.741	0.44	0.431	15.62	22.17	78280	79910	111130	113450	1.20	8.0	15.0	
3	1.012	5	0.615	0.31	0.297	10.14	13.56	72160	75320	96460	100680	1.40	8.0	17.5	
4	0.655	4	0.494	0.20	0.192	6.29	7.95	69360	72250	87680	91330	1.20	8.0	15.0	
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BEND TEST:

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

Note:-

Only Eight Samples Received and Tested

Note: Please always confirm the results of above report on web www.uet-civil.edu.pk

Adnan Ashraf **Test Performed By:** **Dr. /Engr.** **Numan Khurram**

Project Engineer, Tricon Engineers & Co. Lahore

Client Reference: **TRN/04/BBL/07/18** **SOM Lab Ref:** **499 (Page-1/1)**

Dated: **20-03-2019** **Dated:** **20-03-2019**

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^2	in^2	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	2.532	8	0.973	0.79	0.744	26.96	34.76	75270	79930	97040	103040	1.30	8.0	16.3	
2	1.516	6	0.754	0.44	0.446	13.20	21.07	66170	65280	105610	104190	1.40	8.0	17.5	
3	0.642	4	0.491	0.20	0.189	5.66	8.48	62390	66020	93530	98970	1.20	8.0	15.0	
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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

Abdullah Khadim **Test Performed By:** **Dr. /Engr.** **Numan Khurram**

Resident Engineer, DAR Engineering

Client Reference: **DB-78/DAR/RE/ME/2019/0186** **SOM Lab Ref:** **500(Page-1/1)**

Dated: **18-02-2019** **Dated:** **20-03-2019**

Test: **Tension Test & Bend Test** **Test Specification:** **ASTM-A-615 Deformed Bar(Kamran 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^2	in^2	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	1.485	6	0.745	0.44	0.436	14.27	19.72	71540	72190	98870	99780	1.30	8.0	16.3	M-5
2	1.490	6	0.747	0.44	0.438	13.58	19.13	68060	68370	95910	96340	1.40	8.0	17.5	M-5
3	1.475	6	0.743	0.44	0.433	13.71	18.88	68730	69840	94630	96160	1.20	8.0	15.0	M-24
4	1.454	6	0.737	0.44	0.427	12.44	17.50	62340	64240	87730	90400	1.30	8.0	16.3	M-24
5	1.480	6	0.744	0.44	0.435	12.74	18.14	63870	64610	90950	92000	1.50	8.0	18.8	M-25
6	1.435	6	0.733	0.44	0.422	12.69	18.14	63620	66330	90950	94830	1.30	8.0	16.3	M-25
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BEND TEST:

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

Note:-

Only Nine Samples Received and Tested

Note: Please always confirm the results of above report on web www.uet-civil.edu.pk