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

Project Manager, Solar & Energy Projects, LCC - Islamabad

Client Reference: Jazz-Solar/Test/Bacth-1 **Dated:** 23-10-2019

SOM Lab Ref: CED/SOM/1618(Page-1/1) **Dated:** 23-10-2019

Test: Tension Test **Test Specification:** ASTM-F-1554

Sample Type: Anchor Bolt **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	2.274	20	19.22	314	290	100.50	143.70	320	347	457	496	45.0	200	22.5	
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BEND TEST:

--	No Bend test performed

Note:-

Only One Sample Received and Tested

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

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

Resident Engineer, Project Management Department, Al-Imam Enterprises (Pvt) Ltd Lahore

Client Reference: Al-Imam/746/PS-1/DHA/LHE/971 **Dated:** 23-10-2019

SOM Lab Ref: CED/SOM/1621(Page-1/1) **Dated:** 23-10-2019

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

Sample Type: Deformed Steel Bar(Moiz & Kamran 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	3.913	25	25.18	491	498	238.70	321.20	486	480	654	645	32.5	200	16.3	Moiz
2	3.857	25	25.01	491	491	235.20	317.00	479	479	646	646	35.0	200	17.5	Moiz
3	0.882	12	11.96	113	112	52.50	74.00	464	468	654	659	32.5	200	16.3	Kamran
4	0.888	12	12.00	113	113	54.50	75.50	482	482	668	668	32.5	200	16.3	Kamran
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BEND TEST:

25mm	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

Waqar Hussain **Test Performed By:** **Dr. /Engr.** M Irhan Ul Hassan

Chief Resident Engineer (Civil) Panjnad Barrage, Muzaffar garh

Client Reference: TPBC/CRE/TECH/312 **SOM Lab Ref:** 1614(Page-1/1)

Dated: 21-10-2019 **Dated:** 23-10-2019

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

Gauge Length: 8 inch **Sample Type:** Deformed Bar(Abbas 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^2	in^2	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	2.632	8	0.992	0.79	0.773	26.25	34.22	73280	74890	95530	97640	1.30	8.0	16.3	
2	2.656	8	0.997	0.79	0.781	25.54	34.20	71290	72110	95480	96580	1.40	8.0	17.5	
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BEND TEST:

# 8	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

Abdul Ghafar
Project Manager Liberty Builders, Lahore

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

Client Reference: CONC - 20190723
Dated: 23-10-2019

SOM Lab Ref: 1615(Page-1/1)
Dated: 23-10-2019

Test: Tension Test & Bend Test
Test Specification: ASTM-A-615
Gauge Length: 8 inch
Sample Type: Deformed Bar(Model Power)

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	1.456	6	0.738	0.44	0.428	14.14	18.62	70870	72860	93350	95970	1.20	8.0	15.0	
2	1.453	6	0.737	0.44	0.427	14.63	18.52	73320	75560	92840	95670	1.10	8.0	13.8	
3	1.464	6	0.740	0.44	0.430	14.63	18.98	73320	75030	95140	97350	1.30	8.0	16.3	
4	0.653	4	0.494	0.20	0.192	6.85	8.63	75540	78690	95210	99180	1.00	8.0	12.5	
5	0.637	4	0.488	0.20	0.187	6.63	8.58	73070	78150	94650	101230	1.00	8.0	12.5	
6	0.634	4	0.487	0.20	0.186	7.26	9.02	80040	86060	99480	106970	1.00	8.0	12.5	
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BEND TEST:

# 6	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

Amreli Steels Limited
Registered Office, A/18, S.I.T.E., Karachi

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

Client Reference: Nil
Dated: 23-10-2019

SOM Lab Ref: 1616(Page-1/1)
Dated: 23-10-2019

Test: Tension Test
Gauge Length: 8 inch

Test Specification: ASTM-A-615
Sample Type: Deformed Bar Amreli 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^2	in^2	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	3.432	9	1.133	1.00	1.009	30.68	42.76	67670	67070	94310	93470	1.50	8.0	18.8	
2	2.639	8	0.994	0.79	0.776	27.93	35.39	77980	79380	98810	100590	1.50	8.0	18.8	
3	2.062	7	0.878	0.60	0.606	19.16	26.22	70450	69750	96370	95420	1.30	8.0	16.3	
4	1.482	6	0.745	0.44	0.436	14.65	19.75	73430	74100	98970	99880	1.20	8.0	15.0	
5	1.056	5	0.628	0.31	0.310	11.16	13.66	79410	79410	97180	97180	0.90	8.0	11.3	
6	0.655	4	0.494	0.20	0.192	6.32	8.07	69700	72600	89030	92740	0.90	8.0	11.3	
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BEND TEST:

--	No Bend test performed

Note:-

Only Six Samples Received and Tested

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

Chief Cantonment Engineer,
Walton Cantt Lahore

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

Client Reference: WC/CCE/2571
Dated: 18-10-2019

SOM Lab Ref: 1617(Page-1/1)
Dated: 23-10-2019

Test: Tension Test & Bend Test
Gauge Length: 8 inch

Test Specification: ASTM-A-615
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^2	in^2	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	1.531	6	0.757	0.44	0.450	13.99	22.43	70100	68550	112410	109910	1.20	8.0	15.0	
2	1.516	6	0.754	0.44	0.446	13.91	22.07	69750	68810	110620	109130	1.10	8.0	13.8	
3	0.656	4	0.496	0.20	0.193	5.86	8.97	64640	66980	98920	102510	1.00	8.0	12.5	
4	0.657	4	0.496	0.20	0.193	5.83	9.02	64300	66630	99480	103090	1.20	8.0	15.0	
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BEND TEST:

--	No Bend test performed

Note:-

Only Four Samples Received and Tested

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

Muhammad Imran **Test Performed By:** **Dr. /Engr.** S. Asasd Ali Gillani

Chief Executive, Pyramid Consulting & Engineering Services, Lahore

Client Reference: PECS/59/SGM/TSRB/003 **SOM Lab Ref:** 1619(Page-1/1)

Dated: 23-10-2019 **Dated:** 23-10-2019

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^2	in^2	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	1.498	6	0.748	0.44	0.440	13.35	18.98	66940	66940	95140	95140	0.40	8.0	5.0	
2	1.507	6	0.751	0.44	0.443	13.25	20.71	66430	65980	103830	103120	1.00	8.0	12.5	
3	0.696	4	0.511	0.20	0.205	6.09	9.25	67110	65470	101960	99470	0.90	8.0	11.3	
4	0.675	4	0.502	0.20	0.198	7.00	9.30	77230	78010	102520	103550	1.00	8.0	12.5	
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BEND TEST:

# 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

Muhammad Farrukh Latif
PBS (Private) Ltd.

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

Client Reference: nil
Dated: 21-10-2019

SOM Lab Ref: 1620(Page-1/1)
Dated: 23-10-2019

Test: Tension Test & Bend Test
Gauge Length: 8 inch

Test Specification: ASTM-A-615
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^2	in^2	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	2.624	8	0.991	0.79	0.771	25.54	35.09	71290	73050	97950	100370	1.50	8.0	18.8	
2	2.624	8	0.991	0.79	0.771	25.40	35.02	70920	72670	97750	100160	1.30	8.0	16.3	
3	1.506	6	0.751	0.44	0.443	15.72	19.64	78790	78260	98460	97790	1.10	8.0	13.8	
4	1.504	6	0.750	0.44	0.442	15.62	19.67	78280	77930	98610	98170	1.00	8.0	12.5	
5	0.685	4	0.506	0.20	0.201	6.78	8.56	74750	74380	94420	93960	1.00	8.0	12.5	
6	0.682	4	0.505	0.20	0.200	6.85	8.61	75540	75540	94990	94990	1.10	8.0	13.8	
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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 Nine Samples Received and Tested

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