Abdul Ghafar
Project Manager Liberty Builders, Lahore

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

Client Reference: ST/UET/ 20210308
Dated: 08-03-2021

SOM Lab Ref: 3974(Page-1/1)
Dated: 08-03-2021

Test: Tension Test
Gauge Length: 8 inch

Test Specification: ASTM-A-615
Sample Type: Deformed Bar(Batala Prrmium)

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	0.672	4	0.501	0.20	0.197	6.47	9.43	71380	72470	103980	105560	1.00	8.0	12.5	
2	0.677	4	0.503	0.20	0.199	6.78	9.50	74750	75130	104770	105290	1.20	8.0	15.0	
3	0.671	4	0.501	0.20	0.197	5.91	8.84	65200	66190	97460	98940	1.10	8.0	13.8	
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BEND TEST:

# 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

Abdul Ghafar
Project Manager Liberty Builders, Lahore

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

Client Reference: ST/UET/ 20210308-32
Dated: 08-03-2021

SOM Lab Ref: 3975(Page-1/1)
Dated: 08-03-2021

Test: Tension Test
Gauge Length: 8 inch

Test Specification: ASTM-A-615
Sample Type: Deformed Bar(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^2	in^2	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	2.664	8	0.998	0.79	0.783	25.15	34.86	70210	70840	97330	98200	1.10	8.0	13.8	
2	2.613	8	0.989	0.79	0.768	24.36	34.35	68020	69970	95900	98650	1.20	8.0	15.0	
3	2.612	8	0.989	0.79	0.768	26.91	36.95	75130	77280	103160	106120	1.30	8.0	16.3	
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BEND TEST:

# 8	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

Abdul Ghafar
Project Manager Liberty Builders, Lahore

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

Client Reference: ST/UET/ 20210308-34
Dated: 08-03-2021

SOM Lab Ref: 3976(Page-1/1)
Dated: 08-03-2021

Test: Tension Test
Gauge Length: 8 inch

Test Specification: ASTM-A-615
Sample Type: Deformed Bar(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^2	in^2	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	2.651	8	0.996	0.79	0.779	24.21	36.85	67590	68540	102880	104330	0.90	8.0	11.3	
2	2.647	8	0.995	0.79	0.778	23.65	36.09	66020	67040	100740	102300	0.80	8.0	10.0	
3	2.655	8	0.997	0.79	0.780	24.06	36.92	67160	68020	103080	104400	0.90	8.0	11.3	
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BEND TEST:

# 8	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

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

Resident Engineer, NESPAK, (Pvt) Ltd.(U.E.T. Lahore Sub Campus at Narowal)

Client Reference: 3863/13/SYA/Labtesting/306 **SOM Lab Ref:** 3977(Page-1/1)

Dated: 08-03-2021 **Dated:** 08-03-2021

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

Gauge Length: 8 inch **Sample Type:** Deformed Bar (Mughal 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	1.514	6	0.753	0.44	0.445	14.29	19.57	71640	70830	98100	97000	1.00	8.0	12.5	
2	1.515	6	0.753	0.44	0.445	14.60	19.83	73170	72350	99380	98260	1.10	8.0	13.8	
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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

Engr. Tajmmal Farooq **Test Performed By:** **Dr. /Engr.** S. Asad Ali Gillani
Resident Engineer, (AZEA) Sargodha Mianwali Road, Mianwali

Client Reference: RE/MWI-179 **SOM Lab Ref:** 3978 (Page-1/1)
Dated: 23-02-2021 **Dated:** 08-03-2021

Test: Tension Test & Bend Test **Test Specification:** ASTM-A-615
Gauge Length: 8 inch **Sample Type:** Deformed Bar(Pak 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	2.649	8	0.995	0.79	0.778	24.94	34.76	69640	70710	97040	98540	1.50	8.0	18.8	
2	2.665	8	0.998	0.79	0.783	26.50	34.58	73990	74650	96530	97390	1.50	8.0	18.8	
3	0.672	4	0.501	0.20	0.197	7.70	10.01	84870	86160	110390	112070	1.10	8.0	13.8	
4	0.666	4	0.500	0.20	0.196	7.82	10.04	86220	87980	110720	112980	1.00	8.0	12.5	
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BEND TEST:

# 8	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

Brig Saeed Ahmed Malik SI(M). ®
Resident Engineer, NESPAK (Pvt) Ltd. Lahore

Test Performed By: **Dr. /Engr.** Rizwean Azam

Client Reference: 4084/BSAM/104/223
Dated: 05-03-2021

SOM Lab Ref: 3979(Page-1/1)
Dated: 08-03-2021

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	0.706	4	0.513	0.20	0.207	5.91	8.92	65200	62990	98360	95030	0.60	8.0	7.5	
2	0.638	4	0.488	0.20	0.187	5.30	7.87	58460	62520	86780	92810	0.90	8.0	11.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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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

Naveed Ahmed
Material Engineer, DHA, Bahawalpur)

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

Client Reference: 426/QC/MTL
Dated: 05-03-2021

SOM Lab Ref: 3981(Page-1/1)
Dated: 08-03-2021

Test: Tension Test & Bend Test

Test Specification: ASTM-A-615 Deformed Bar(Mughal & Amberili 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	2.610	8	0.988	0.79	0.767	27.98	37.00	78120	80460	103300	106400	1.00	8.0	12.5	
2	1.499	6	0.749	0.44	0.441	18.73	22.09	93860	93650	110720	110470	1.00	8.0	12.5	
3	0.659	4	0.497	0.20	0.194	6.39	8.92	70480	72660	98360	101400	1.40	8.0	17.5	
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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

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

Manager Construction Projects, 3 & 4, Tipu Block New Garden Town, Allied Bank Head Office, Lahore

Client Reference: HOL/ENGG. C.P./SM/2021/21 **SOM Lab Ref:** 3982 (Page-1/1)

Dated: 08-03-2021 **Dated:** 08-03-2021

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

Gauge Length: 8 inch **Sample Type:** Deformed Bar (Amrili 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	1.529	6	0.756	0.44	0.449	16.92	19.95	84820	83120	99990	97990	1.30	8.0	16.3	
2	1.541	6	0.759	0.44	0.453	16.87	20.03	84560	82140	100400	97520	1.30	8.0	16.3	
3	1.057	5	0.629	0.31	0.311	12.49	14.09	88840	88560	100230	99900	1.20	8.0	15.0	
4	1.058	5	0.629	0.31	0.311	12.51	14.14	88990	88700	100590	100270	1.00	8.0	12.5	
5	0.679	4	0.505	0.20	0.200	7.85	9.12	86560	86560	100610	100610	1.30	8.0	16.3	
6	0.652	4	0.494	0.20	0.192	7.70	8.97	84870	88410	98920	103040	1.20	8.0	15.0	
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Witnessed By: Zaeem Ahmed, Lab Tech. AMCORP Eng. & Const

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 Nine Samples Received and Tested

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

Engr. Naveed Sadiq **Test Performed By:** **Dr. /Engr.** S. Asad Ali Gillani
Resident Engineer, Orbit Developers Private Limited, Lahore

Client Reference: Nil **SOM Lab Ref:** 3983(Page-1/1)
Dated: 08-03-2021 **Dated:** 08-03-2021

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^2	in^2	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	2.791	8	1.022	0.79	0.820	27.01	35.68	75420	72660	99600	95960	1.70	8.0	21.3	
2	2.672	8	1.000	0.79	0.785	25.25	33.76	70490	70940	94250	94850	1.50	8.0	18.8	
3	1.543	6	0.759	0.44	0.453	15.75	20.05	78940	76680	100500	97620	1.00	8.0	12.5	
4	1.474	6	0.743	0.44	0.433	16.00	20.08	80220	81520	100660	102290	1.20	8.0	15.0	
5	0.699	4	0.511	0.20	0.205	7.44	9.28	82060	80060	102290	99800	1.00	8.0	12.5	
6	0.665	4	0.498	0.20	0.195	6.98	8.66	77000	78980	95550	98000	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

Assistant Director -II **Test Performed By:** **Dr. /Engr.** S. Asad Ali Gillani

Building Research Station, C & W, Department, Govt. of Punjab, Lahore

Client Reference: 154-R/591 **SOM Lab Ref:** 3984(Page-1/1)

Dated: 08-03-2021 **Dated:** 08-03-2021

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

Gauge Length: 8 inch **Sample Type:** Deformed Bar(Pak 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	2.608	8	0.988	0.79	0.766	26.52	36.11	74050	76370	100800	103960	1.50	8.0	18.8	
2	1.455	6	0.738	0.44	0.428	14.22	19.57	71280	73280	98100	100850	1.20	8.0	15.0	
3	0.679	4	0.505	0.20	0.200	6.07	8.69	66890	66890	95770	95770	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 Six Samples Received and Tested

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

Maj Adnan khalid®

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

Dy Dir MTL, Infra Development Work, Sector - Q, DHA PH -XI - (M/S DHA - C)

Client Reference: 408/241/E/Lab/42/853

Dated: 04-03-2021

SOM Lab Ref: 3985(Page-1/1)

Dated: 08-03-2021

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	0.635	4	0.488	0.20	0.187	7.08	9.28	78130	83560	102290	109400	1.20	8.0	15.0	
2	0.638	4	0.488	0.20	0.187	7.10	9.28	78350	83800	102290	109400	1.40	8.0	17.5	
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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

Sajjad Ali Memon
Resident Engineer, Pillar & Sons, DHA Multan

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

Client Reference: P&S/OTH/GEN/00022
Dated: 5-03-2021

SOM Lab Ref: 3986(Page-1/1)
Dated: 08-03-2021

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	2.704	8	1.006	0.79	0.795	27.01	37.61	75420	74940	105010	104350	1.20	8.0	15.0	
2	2.579	8	0.982	0.79	0.758	27.52	37.92	76840	80080	105860	110330	1.30	8.0	16.3	
3	0.648	4	0.492	0.20	0.190	6.39	9.55	70480	74190	105330	110870	1.40	8.0	17.5	
4	0.663	4	0.498	0.20	0.195	6.73	9.99	74190	76090	110160	112990	1.30	8.0	16.3	
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BEND TEST:

# 8	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

Ehsan - Ullah-Saad
Project Manager, Zaheer Associates, Lahore

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

Client Reference: Z.A/A.R/14-21
Dated: 04-03-2021

SOM Lab Ref: 3989 (Page-1/1)
Dated: 08-03-2021

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	1.494	6	0.748	0.44	0.439	14.42	21.10	72300	72470	105770	106010	1.60	8.0	20.0	
2	1.490	6	0.747	0.44	0.438	14.58	21.10	73070	73400	105770	106250	1.50	8.0	18.8	
3	0.666	4	0.500	0.20	0.196	7.49	10.40	82620	84310	114660	117000	1.40	8.0	17.5	
4	0.665	4	0.498	0.20	0.195	7.21	10.37	79470	81510	114320	117250	1.30	8.0	16.3	
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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