

Test Performed by: Dr. Irfan UI Hassan

Engr. Zaheer Ud Din Babar,  
Dy.General Manager (Works)  
Habib Rafiq Engineering (Pvt.) Ltd, Lahore  
(Construction of Sky Gardens Tower, Lahore.)

Client Reference No.: HRLE/SKG/2024/L-12/102-16/169

Dated: 21-10-2024

SOM Lab Ref: CED/SOM/038-059(Page-1/1)

Dated: 22-10-2024

Test: Tensile Test

Sample Type: M.S Deformed Steel bar with Coupler (Zahid Engineering)

### Tension Test Results

Sr. No.	Bar Size	Area	Yield Load	Ultimate Load	Yield stress	Ultimate stress	Remarks
	( mm )	(mm <sup>2</sup> )	kN	kN	(Mpa)	(Mpa)	
1	16	201	104.0	130.7	517	650	failure at threaded Portion
2	16	201	97.0	122.0	483	607	failure at threaded Portion

Witnessed by: M.Irfan QC Engr/HRL, Najam Shabbir Khan Site Engineer/101 Group

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

Nisir Mahmood

Test Performed By:

Dr. /Engr.

Asad Ali Gillani

Sn RE ESAC DHA Multan.(Const Of Bahauddin Zakrya Gate DHA Multan)

Client Reference: RE/ESAC/BZ Gate/17

SOM Lab Ref:

066 (Page-1/1)

Dated: 17-10-2024

Dated:

22-10-2024

Test: Tension Test

Test Specification:

ASTM-F-1554

Guage Length: 200 mm

Sample Type:

J-Bolt

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	2.597	20	20.53	314	331	122.00	178.50	389	369	568	540	40.0	200	20.0	
2	2.552	20	20.34	314	325	124.50	184.00	396	384	586	567	35.0	200	17.5	
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**BEND TEST:**

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

**Client Reference No.:** NESPAK/PRSWSSP/TAUNSA/RE/405  
2024

**Dated:** 21-10-

**SOM Lab Ref:** CED/SOM/071  
23-10-2024

**Dated:**

**Test Type:** Load Test of RPC Manhole Cover (HMD Water Supply Center)

**Test Standard:** Non-standard test was performed as per requirement of the client [Application of load at the center of the Manhole Cover through circular thick steel plate of 377mm diameter]

**Test Performed by:** Dr. Asad Ali Gillani

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Rabab Ali

Resident Engineer

NESPAK (Pvt.) Ltd PRSWSSP, Taunsa.

(PRMSC, PRSWSSP Tehsil Taunsa) (Package-II & V)

This is with reference to your above-mentioned letter and SOM receipt No. 071 dated: 22-10-2024. The sample of RPC Manhole Cover submitted in the Laboratory has been tested and the result is provided below.

### Load Test Result

Weight of Manhole Cover With Ring	Diameter of Manhole Cover	Average Thickness of Manhole Cover	Maximum Load	Observations/Remarks
49.35 Kg	640 mm	74.30 mm	14300 kg	The sample was cracked at this load

Muhammad Yaseen

Test Performed By:

Dr. /Engr.

Nauman Khurram

Sr Project Manager Hassan Const Company.(TCCC Manual Color Filling and Buffer Room)

Client Reference: HC-CPS-03

SOM Lab

Ref:

058 (Page-1/1)

Dated: 22-10-2024

Dated:

22-10-2024

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	1.454	6	0.737	0.44	0.427	13.22	18.35	66270	68290	91970	94770	1.30	8.0	16.3	
2	1.451	6	0.736	0.44	0.426	13.30	18.55	66680	68870	92990	96050	1.30	8.0	16.3	
3	0.672	4	0.501	0.20	0.197	6.27	8.63	69130	70190	95210	96660	1.30	8.0	16.3	
4	0.662	4	0.498	0.20	0.195	6.32	8.53	69700	71480	94090	96500	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)

Engineer Muhammad Irfan  
Dy Dir Infra. DHA Gujranwala.(Sector L)

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

Client Reference: 111/DD/Lab/L/1340

SOM Lab

Ref: 060 (Page-1/1)

Dated: 21-10-2024

Dated: 22-10-2024

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	2.665	8	0.998	0.79	0.783	26.37	34.83	73620	74280	97240	98110	1.50	8.0	18.8	
2	2.670	8	1.000	0.79	0.785	28.49	36.46	79540	80050	101800	102440	1.50	8.0	18.8	
3	0.668	4	0.500	0.20	0.196	6.52	8.28	71940	73410	91280	93140	1.20	8.0	15.0	
4	0.672	4	0.501	0.20	0.197	6.83	8.72	75320	76460	96110	97570	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)

Engr Muhammad Salman Q

Test Performed By:

Dr. /Engr.

Asad Ali Gillani

RE ARY Laguna DHA Gujranwala.(ARY Laguna Phase-01 DHA Gujranwala)

Client Reference: ARY(Gujr)/Eng/RE/003/24

SOM Lab

Ref:

061 (Page-1/1)

Dated: 21-10-2024

Dated:

22-10-2024

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	1.474	6	0.743	0.44	0.433	14.70	18.88	73680	74870	94630	96160	1.30	8.0	16.3	
2	1.480	6	0.744	0.44	0.435	15.57	19.44	78020	78920	97440	98560	1.40	8.0	17.5	
3	0.668	4	0.500	0.20	0.196	6.75	8.74	74420	75940	96340	98300	1.40	8.0	17.5	
4	0.668	4	0.500	0.20	0.196	6.24	8.69	68800	70200	95770	97730	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)

Prime Steel Re-Rolling Mills  
Sheikhupura.

Test Performed By: Dr. /Engr. Wasim Abbas

Client Reference: Nil

SOM Lab

Ref: 062 (Page-1/7)

Dated: 22-10-2024

Dated: 22-10-2024

Test: Tension Test & Bend Test

Test Specification:

ASTM-A-615

Gauge Length: 8 inch

Sample Type:

Deformed Bar (Prime 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	2.528	8	0.973	0.79	0.743	23.47	34.58	65510	69660	96530	102640	0.90	8.0	11.3	H # 1
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**BEND TEST:**

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

Prime Steel Re-Rolling Mills  
Sheikhupura.

Test Performed By: Dr. /Engr. Wasim Abbas

Client Reference: Nil

SOM Lab

Ref: 062 (Page-2/7)

Dated: 22-10-2024

Dated: 22-10-2024

Test: Tension Test & Bend Test

Test Specification:

ASTM-A-615

Gauge Length: 8 inch

Sample Type:

Deformed Bar (Prime 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	2.722	8	1.009	0.79	0.800	23.01	35.44	64230	63430	98950	97710	0.90	8.0	11.3	H # 2
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**BEND TEST:**

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



Prime Steel Re-Rolling Mills  
Sheikhupura.

Test Performed By: Dr. /Engr. Wasim Abbas

Client Reference: Nil

SOM Lab

Ref: 062 (Page-3/7)

Dated: 22-10-2024

Dated: 22-10-2024

Test: Tension Test & Bend Test

Test Specification:

ASTM-A-615

Gauge Length: 8 inch

Sample Type:

Deformed Bar (Prime 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	2.650	8	0.996	0.79	0.779	22.45	36.16	62670	63550	100940	102370	0.90	8.0	11.3	H # 3
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**BEND TEST:**

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

Prime Steel Re-Rolling Mills  
Sheikhupura.

Test Performed By: Dr. /Engr. Wasim Abbas

Client Reference: Nil

SOM Lab

Ref: 062 (Page-4/7)

Dated: 22-10-2024

Dated: 22-10-2024

Test: Tension Test & Bend Test

Test Specification:

ASTM-A-615

Gauge Length: 8 inch

Sample Type:

Deformed Bar (Prime 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	0.976	5	0.604	0.31	0.287	8.31	13.07	59110	63840	92970	100420	1.00	8.0	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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**BEND TEST:**

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

Prime Steel Re-Rolling Mills  
Sheikhupura.

Test Performed By: Dr. /Engr. Wasim Abbas

Client Reference: Nil

SOM Lab

Ref: 062 (Page-5/7)

Dated: 22-10-2024

Dated: 22-10-2024

Test: Tension Test & Bend Test

Test Specification:

ASTM-A-615

Gauge Length: 8 inch

Sample Type:

Deformed Bar (Prime 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	0.673	4	0.502	0.20	0.198	5.63	8.51	62050	62680	93860	94810	1.10	8.0	13.8	H # 1
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**BEND TEST:**

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

Prime Steel Re-Rolling Mills  
Sheikhupura.

Test Performed By: Dr. /Engr. Wasim Abbas

Client Reference: Nil

SOM Lab

Ref: 062 (Page-6/7)

Dated: 22-10-2024

Dated: 22-10-2024

Test: Tension Test & Bend Test

Test Specification:

ASTM-A-615

Gauge Length: 8 inch

Sample Type:

Deformed Bar (Prime 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	0.667	4	0.500	0.20	0.196	5.96	8.87	65760	67100	97800	99790	1.20	8.0	15.0	H # 2
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**BEND TEST:**

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

Prime Steel Re-Rolling Mills  
Sheikhupura.

Test Performed By: Dr. /Engr. Wasim Abbas

Client Reference: Nil

SOM Lab

Ref: 062 (Page-7/7)

Dated: 22-10-2024

Dated: 22-10-2024

Test: Tension Test & Bend Test

Test Specification:

ASTM-A-615

Gauge Length: 8 inch

Sample Type:

Deformed Bar (Prime 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	0.671	4	0.501	0.20	0.197	6.01	8.84	66320	67330	97460	98940	1.10	8.0	13.8	H # 3
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**BEND TEST:**

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

Engr. Naveed Sadiq  
RE Orbit Developers.Lahore.(The Springs Atrium,Gulberg Lahore)

**Test Performed By:** Dr. /Engr. Wasim Abbas

**Client Reference:** Nil

**SOM Lab**

**Ref:** 063 (Page-1/1)

**Dated:** 22-10-2024

**Dated:** 22-10-2024

**Test:** Tension Test & Bend Test

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

ASTM-A-615

**Gauge Length:** 8 inch

**Sample Type:** Deformed Bar

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	23.72	36.06	66220	67160	100660	102080	1.30	8.0	16.3	
2	2.630	8	0.992	0.79	0.773	24.08	36.09	67220	68700	100740	102960	1.40	8.0	17.5	
3	1.463	6	0.740	0.44	0.430	13.07	19.22	65510	67030	96320	98550	1.20	8.0	15.0	
4	1.460	6	0.739	0.44	0.429	13.20	19.32	66170	67870	96830	99310	1.30	8.0	16.3	
5	0.662	4	0.498	0.20	0.195	6.22	8.82	68570	70330	97230	99730	1.10	8.0	13.8	
6	0.668	4	0.500	0.20	0.196	6.93	9.65	76440	78000	106450	108620	1.20	8.0	15.0	
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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)

Abdul Baseet  
ME Banu Mukhtar Contracting(Pvt.) Ltd.(Burj-1 By AJWA Builders)

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

**Client Reference:** DOC-BMC/AJWA/147

**SOM Lab**

**Ref:** 064 (Page-1/1)

**Dated:** 21-10-2024

**Dated:** 22-10-2024

**Test:** Tension Test & Bend Test

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

**Gauge Length:** 8 inch

**Sample Type:** Deformed Bar

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	2.647	8	0.995	0.79	0.778	27.22	36.49	75980	77160	101880	103450	1.50	8.0	18.8	
2	2.650	8	0.996	0.79	0.779	28.75	37.61	80250	81390	105010	106490	1.40	8.0	17.5	
3	0.671	4	0.501	0.20	0.197	6.19	8.35	68230	69270	92060	93470	1.30	8.0	16.3	
4	0.667	4	0.500	0.20	0.196	6.27	8.43	69130	70540	92960	94860	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 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)

Punjab Aab-e-Pak Authority

Test Performed By:

Dr. /Engr. Asad Ali Gillani

AM P&MC Rwp Div North Zone.(Installation Of Water Filtration Plant at Village Dhoong Distt Rwp)

Client Reference: PAPA/DM (P&MC)/RWP/10-04/06-10

SOM Lab

Ref: 065 (Page-1/1)

Dated: 04-10-2024

Dated: 22-10-2024

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 <sup>2</sup>	in <sup>2</sup>	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	0.666	4	0.500	0.20	0.196	6.98	8.43	77000	78570	92960	94860	1.20	8.0	15.0	
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**BEND TEST:**

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



Shamshad Hussain Bukhari,PM

Test Performed By: Dr. /Engr. Nauman Khurram

GMHP Consultants.(Design, Procurement & Const.Of 84MW Gorkin-Matiltan HydroPower Project)

Client Reference: 8292-94/PM/30/GMHPP/2024

SOM Lab

Ref: 068 (Page-1/2)

Dated: 12-10-2024

Dated: 22-10-2024

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	2.617	8	0.990	0.79	0.769	24.41	32.87	68160	70020	91780	94280	1.50	8.0	18.8	Hunza
2	2.630	8	0.992	0.79	0.773	24.33	32.77	67930	69430	91490	93510	1.60	8.0	20.0	Hunza
3	2.557	8	0.978	0.79	0.751	18.81	30.84	52510	55230	86090	90560	1.40	8.0	17.5	Isb
4	2.566	8	0.980	0.79	0.754	19.01	30.94	53080	55610	86370	90500	1.40	8.0	17.5	Isb
5	1.437	6	0.733	0.44	0.422	10.91	17.50	54670	57010	87730	91470	1.40	8.0	17.5	Isb
6	1.449	6	0.736	0.44	0.426	11.01	17.71	55190	57000	88750	91670	1.60	8.0	20.0	Isb
7	1.646	6	0.785	0.44	0.484	16.26	21.61	81500	74090	108320	98480	1.40	8.0	17.5	Hunza
8	1.664	6	0.789	0.44	0.489	16.23	21.63	81340	73190	108420	97560	1.50	8.0	18.8	Hunza
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**BEND TEST:**

# 8	Sample bend through 180 degrees Satisfactorily without any crack	<b>Note:-</b>  Only Twelve Samples Received and Tested
# 8	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: Please always confirm the results of above report on web [www.uet-civil.edu.pk](http://www.uet-civil.edu.pk)

Shamshad Hussain Bukhari,PM

Test Performed By: Dr. /Engr. Nauman Khurram

GMHP Consultants.(Design, Procurement & Const.Of 84MW Gorkin-Matiltan HydroPower Project)

Client Reference: 8292-94/PM/30/GMHPP/2024

SOM Lab

Ref: 068 (Page-2/2)

Dated: 12-10-2024

Dated: 22-10-2024

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	1.074	5	0.634	0.31	0.316	9.96	12.74	70860	69510	90650	88930	1.50	8.0	18.8	Hunza
2	1.079	5	0.635	0.31	0.317	9.99	12.76	71070	69500	90800	88790	1.60	8.0	20.0	Hunza
3	0.667	4	0.500	0.20	0.196	6.54	8.61	72170	73640	94990	96930	1.30	8.0	16.3	Hunza
4	0.668	4	0.500	0.20	0.196	6.32	8.41	69700	71120	92740	94630	1.40	8.0	17.5	Hunza
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**BEND TEST:**

# 5	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)

Engineer

Test Performed By: Dr. /Engr. Nauman Khurram

Capital Ata Tower Lahore.(Project: Capital Ata Tower,Plot No.1 Ferozepur Rd Ichra,Lahore)

Client Reference: Nil

SOM Lab

Ref: 069 (Page-1/1)

Dated: 22-10-2024

Dated: 22-10-2024

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	0.664	4	0.498	0.20	0.195	7.54	9.19	83180	85320	101390	103990	1.10	8.0	13.8	
2	0.666	4	0.500	0.20	0.196	7.51	9.07	82850	84540	100050	102090	1.00	8.0	12.5	
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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)

Baber Baig, RE

Test Performed By:

Dr. /Engr.

Nauman Khurram

QA/QC Deptt. Bahria Town Lhr. (Boundary Wall Block M Bahria Orchard Lahore)

Client Reference: QA/QC/Steel-3832

SOM Lab

Ref:

070 (Page-1/1)

Dated: 18-10-2024

Dated:

22-10-2024

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	1.507	6	0.751	0.44	0.443	14.70	19.85	73680	73180	99480	98810	1.50	8.0	18.8	
2	1.490	6	0.747	0.44	0.438	14.63	19.80	73320	73660	99230	99680	1.50	8.0	18.8	
3	0.670	4	0.501	0.20	0.197	6.47	8.48	71380	72470	93530	94950	1.20	8.0	15.0	
4	0.670	4	0.501	0.20	0.197	6.34	8.28	69920	70990	91280	92670	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)

