

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

Fasih Ullah  
The Engineer/Resident Engineer  
WSS Kohat.

(Khyber Pakhtunkhwa Cities Improvement Project PCB-KPCIP-CW-02: Procurement of Works  
For Improvement /Const of Water Supply System: Lot-3)

**Client Reference No.:** KPCIP/PMSCS/CW-02/LOT-03/242

Dated: 29-02-2024

**SOM Lab Ref:** CED/SOM/4055 (Page 1/3)

Dated: 03-05-2024

**Test Type:** Tensile Test & Bend Test

**Specification:** ASTM A 53/A 53M-01

**Sample Type:** MS Heavy GI Pipe (Jamal Brand)

**Gauge Length:** 2 inches

**Tensile & Bend Test Results**

Sr. No	Sample Type	Size of strip (mm)	X Section Area (mm <sup>2</sup> )	Yield Load (kN)	Ultimate Load (kN)	Yield Stress (MPa)	Ultimate Tensile Stress (MPa)	Elongation (inch)	% Elongation
1	GI Pipe (Dia 8")	29.0 x 8.00	232.00	84.00	105.50	362.07	454.74	0.60	30.00
2	GI Pipe (Dia 8")	29.0 x 8.00	232.00	84.50	107.00	364.22	461.21	0.60	30.00
3	GI Pipe (Dia 6")	29.9 x 7.35	219.77	81.00	103.00	368.58	468.68	0.60	30.00
4	GI Pipe (Dia 6")	29.6 x 7.35	217.56	79.00	102.90	363.12	472.97	0.60	30.00
5	GI Pipe (Dia 4")	27.6 x 6.40	176.64	65.00	81.20	367.98	459.69	0.60	30.00
6	GI Pipe (Dia 4")	27.9 x 6.40	178.56	66.00	80.50	369.62	450.83	0.60	30.00
7	GI Pipe (Dia 8") strip sample Bend through 180 degrees satisfactorily without any crack								
8	GI Pipe (Dia 6") strip sample Bend through 180 degrees satisfactorily without any crack								
9	GI Pipe (Dia 4") strip sample Bend through 180 degrees satisfactorily without any crack								

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

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(Khyber Pakhtunkhwa Cities Improvement Ptoject PCB-KPCIP-CW-02: Procurement of Works  
For Improvement /Const of Water Supply System: Lot-3)

**Client Reference No.:** KPCIP/PMSCC/CW-02/LOT-03/242

Dated: 29-02-2024

**SOM Lab Ref:** CED/SOM/4055 (Page 2/3)

Dated: 03-05-2024

**Test Type:** Dimension Test

#### Dimension Test Results

Sr. No.	Sample Type	External Dia (mm)	Internal Dia (mm)	Wall Thickness (mm)
1	GI Pipe (Dia 8")	220.0	204.0	8.0
2	GI Pipe (Dia 6")	168.0	153.3	7.35
3	GI Pipe (Dia 4")	115.0	102.2	6.40

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For Improvement /Const of Water Supply System: Lot-3)

**Client Reference No.:** KPCIP/PMCSC/CW-02/LOT-03/242

Dated: 29-02-2024

**SOM Lab Ref:** CED/SOM/4055 (Page 3/3)

Dated: 03-05-2024

**Test Type:** Flattening Test

**Specification:** ASTM A 53/A 53M-01

### Flattening Test Results

Sr. No.	Sample Type	Test Type	Observation/Results
1	GI Pipe (Dia 8")	Ductility	No crack was observed
		Soundness	No evidence of lamination noticed
2	GI Pipe (Dia 6")	Ductility	No crack was observed
		Soundness	No evidence of lamination noticed
3	GI Pipe (Dia 4")	Ductility	No crack was observed
		Soundness	No evidence of lamination noticed

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

M.Arslan Khaleel  
 Amanah Noor Residence Model Town, Lahore.

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

**Client Reference:** Nil

**SOM Lab**

**Ref:** 4052 (Page-1/1)

**Dated:** 03-05-2024

**Dated:** 03-05-2024

**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	0.671	4	0.501	0.20	0.197	6.93	8.82	76440	77600	97230	98720	1.30	8.0	16.3	
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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)

Metroplan-Asian JV

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

Site Office JHL ET,Lahore.(Estb Of Jinnah Institute of Cardiology at Jinnah Hospital Lahore)

Client Reference: Metroplan-Asian JV ET-JHL-RE-190-2024

SOM Lab

Ref: 4053(Page-1/1)

Dated: 03-05-2024

Dated: 03-05-2024

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 <sup>2</sup>	in <sup>2</sup>	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	1.534	6	0.758	0.44	0.451	14.24	18.35	71380	69640	91970	89730	1.50	8.0	18.8	
2	1.519	6	0.754	0.44	0.446	13.66	17.89	68470	67550	89670	88470	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 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)

Engr. Anis Ahmad

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

Mansoor Mazhar & Associates. (Const Of Tanveer Ahmad Residence, 243 Sec-D DHA Ph-VIII)

**Client Reference:** MMA/TAH/PVIII/002

**SOM Lab**

**Ref:** 4054 (Page-1/1)

**Dated:** 03-05-2024

**Dated:** 03-05-2024

**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	2.659	8	0.997	0.79	0.781	23.24	34.63	64890	65630	96670	97790	1.30	8.0	16.3	
2	2.666	8	0.998	0.79	0.783	23.41	34.76	65370	65950	97040	97910	1.50	8.0	18.8	
3	1.446	6	0.736	0.44	0.425	15.34	20.51	76900	79610	102800	106430	1.30	8.0	16.3	
4	1.449	6	0.736	0.44	0.426	15.39	20.54	77160	79690	102960	106340	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
# 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)

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

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

**Client Reference:** 111/15/AD/RS/Lab/Sec-K/624

**SOM Lab**

**Ref:** 4056 (Page-1/1)

**Dated:** 30-04-2024

**Dated:** 03-05-2024

**Test:** Tension Test Test

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

**Gauge Length:** 8 inch

**Sample Type:** Plain Bar (Iron Rungs)

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	2.763	8	1.017	0.79	0.812	17.74	26.37	49520	48180	73620	71630	1.30	8.0	16.3	
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**BEND TEST:**

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