Test Performed by: S. Asad Ali Gillani

AZ Pipe Industries (Pvt) Ltd.
Ferozwala.
(For Balakot HydroPower Project)

Client Reference No.: MZ/JV-CGGC/UET/455 Dated: 30-09-2024

SOM Lab Ref: CED/SOM/4897 (Page 1/1) Dated: 01-10-2024

Test Type: Tensile Test **Specification:** ASTM A-252

Sample Type: Galvanized Welded Steel Pipe (For Piles) **Gauge Length:** 2 inches

Tensile Test Results

Sr. No.	Size of strip (mm)	X Section Area (mm^2)	Yield Load (kN)	Ultimate Load (kN)	Yield Stress (MPa)	Ultimate Tensile Stress (MPa)	Elongation (inch)	% Elongation
1	19.0 x 6.30	119.70	44.10	56.70	368.42	473.68	0.50	25.00
2	19.0 x 6.20	117.80	43.00	54.70	365.03	464.35	0.50	25.00

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

Assistant Resident Engineer **Test Performed By:** **Dr. /Engr.** Asad Ali Gillani
ECSP (Pvt) Ltd. Lahore.(Smart Saff Cities Project Phase-I)

Client Reference: ECSP/DIC/24-31 **SOM Lab Ref:** 4904 (P-1/2)
Dated: 24-09-2024 **Dated:** 01-10-2024
Test: Tension Test & Bend Test **Test Specification:** ASTM-F-1554
Guage Length: 200 mm **Sample Type:** I-Bolts

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	5.729	30	30.49	645	730	314.00	442.20	487	431	686	606	45.0	200	22.5	
2	4.000	25	25.47	491	510	166.70	249.20	340	328	508	490	45.0	200	22.5	
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BEND TEST:

30mm	Sample bend through 180 degrees Satisfactorily without any crack
25mm	Sample bend through 180 degrees Satisfactorily without any crack

Note:-

Only Two Samples Received and Tested

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

Assistant Resident Engineer **Test Performed By:** **Dr. /Engr.** Asad Ali Gillani
ECSP (Pvt) Ltd. Lahore.(Smart Saff Cities Project Phase-I)

Client Reference: ECSP/DIC/24-30 **SOM Lab Ref:** 4904 (P-2/2)
Dated: 24-09-2024 **Dated:** 01-10-2024
Test: Tension Test & Bend Test **Test Specification:** ASTM-A-615
Guage Length: 200 mm **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)				
	kg/m	mm	mm	mm^2	mm^2	kN	kN	MPa	MPa	MPa	MPa	mm	mm	%	
1	1.509	16	15.64	201	192	100.00	127.00	498	521	632	662	30.0	200	15.0	
2	1.524	16	15.72	201	194	100.70	127.00	501	519	632	655	35.0	200	17.5	
3	0.759	12	11.09	113	97	68.00	87.00	602	704	770	901	30.0	200	15.0	
4	0.760	12	11.10	113	97	65.70	85.20	581	679	754	881	30.0	200	15.0	
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BEND TEST:

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

Engr. Arfan Ullah **Test Performed By:** **Dr. /Engr.** Asad Ali Gillani
Assistant Engr Civil National Skills University Islamabad.(Const of B/Wall and Main Gate)

Client Reference: NSU/Muridke/Phase-I/2023/16 **SOM Lab Ref:** 4896 (Page-1/1)
Dated: 20-05-2024 **Dated:** 01-10-2024

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^2	in^2	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	0.668	4	0.500	0.20	0.196	5.93	9.30	65420	66760	102520	104610	1.00	8.0	12.5	
2	0.667	4	0.500	0.20	0.196	5.76	8.97	63510	64810	98920	100940	1.10	8.0	13.8	
3	0.671	4	0.501	0.20	0.197	5.86	9.12	64640	65620	100610	102140	1.10	8.0	13.8	
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BEND TEST:

--	No Bend test performed

Note:-

Only Three Samples Received and Tested

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

Noon Developers & Marketing **Test Performed By:** **Dr. /Engr.** Wasim Abbas
Lahore.(Canal Heights 3-B, Block B,Noon Avenue, New Muslim Town Lahore)

Client Reference: 4400/0930 **SOM Lab Ref:** 4898(Page-1/1)
Dated: 30-09-2024 **Dated:** 01-10-2024
Test: Tension Test **Test Specification:** ASTM-A-615
Gauge Length: 8 inch **Sample Type:** Deformed Bar (Premier 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	2.597	8	0.986	0.79	0.763	25.50	34.20	71200	73720	95480	98860	1.40	8.0	17.5	
2	2.596	8	0.986	0.79	0.763	25.20	34.48	70350	72840	96250	99650	1.30	8.0	16.3	
3	1.492	6	0.747	0.44	0.438	15.01	19.39	75210	75560	97180	97630	1.30	8.0	16.3	
4	1.490	6	0.747	0.44	0.438	15.16	19.34	75980	76330	96930	97370	1.30	8.0	16.3	
5	0.666	4	0.500	0.20	0.196	6.27	8.36	69130	70540	92180	94060	1.10	8.0	13.8	
6	0.669	4	0.501	0.20	0.197	6.17	8.33	68010	69050	91840	93240	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 Nine Samples Received and Tested

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

M. Yasir Kiani, RE **Test Performed By:** **Dr. /Engr.** Asad Ali Gillani

JCP Wahga NESPAK. (Expension Of Joint Check Post Wahga, Lahore)

Client Reference: 4749/031/YK/01/69 **SOM Lab Ref:** 4899(Page-1/1)

Dated: 01-10-2024 **Dated:** 01-10-2024

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

Gauge Length: 8 inch **Sample Type:** Deformed Bar (Aziz 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	2.652	8	0.996	0.79	0.779	22.29	36.16	62240	63120	100940	102370	1.40	8.0	17.5	
2	2.661	8	0.998	0.79	0.782	22.27	34.45	62180	62820	96190	97170	1.50	8.0	18.8	
3	1.477	6	0.743	0.44	0.434	12.51	20.03	62700	63560	100400	101790	1.30	8.0	16.3	
4	1.485	6	0.745	0.44	0.436	12.54	20.18	62850	63430	101170	102100	1.40	8.0	17.5	
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Witnessed By: Sohail Sulehri (NESPAK)

BEND TEST:

# 8	Sample bend through 180 degrees Satisfactorily without any crack
# 6	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 Atif Khalil **Test Performed By:** **Dr. /Engr.** Wasim Abbas

PM Banu Mukhtar Contracting(Pvt.) Ltd.(Burj-1 By AJWA Builders)

Client Reference: DOC-BMC/AJWA/146 **SOM Lab Ref:** 4900 (Page-1/1)

Dated: 30-09-2024 **Dated:** 01-10-2024

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^2	in^2	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	2.654	8	0.997	0.79	0.780	26.42	35.32	73770	74710	98610	99870	1.40	8.0	17.5	
2	2.665	8	0.998	0.79	0.783	28.87	37.18	80590	81320	103790	104710	1.50	8.0	18.8	
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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

Jawad Qayyum Khan,RE **Test Performed By:** **Dr. /Engr.** Asad Ali Gillani

NESPAK (4376) Sargodha. (Dualization of Muzaffargarh Road Length 25.25KM)

Client Reference: 4376/JQK/24/6988 **SOM Lab Ref:** 4901 (Page-1/1)

Dated: 06-09-2024 **Dated:** 01-10-2024

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

Gauge Length: 8 inch **Sample Type:** Deformed Bar (Batala Super 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	1.516	6	0.754	0.44	0.446	15.26	19.18	76490	75460	96160	94870	1.30	8.0	16.3	
2	1.511	6	0.752	0.44	0.444	16.36	19.69	82010	81270	98720	97830	1.40	8.0	17.5	
3	1.043	5	0.625	0.31	0.307	10.65	13.22	75790	76530	94060	94980	1.30	8.0	16.3	
4	1.046	5	0.625	0.31	0.307	10.70	13.30	76150	76890	94640	95570	1.40	8.0	17.5	
5	0.674	4	0.502	0.20	0.198	6.37	8.22	70260	70970	90600	91520	1.00	8.0	12.5	
6	0.672	4	0.501	0.20	0.197	6.42	8.31	70820	71900	91610	93010	1.20	8.0	15.0	
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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 Nine Samples Received and Tested

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

Ali Zahid Latif, RE **Test Performed By:** **Dr. /Engr.** Wasim Abbas

Nespak-Turkpak JV Lhr.(Reconstruction of Old P&D Building,Lahore)

Client Reference: 4674/P&D/13/09/AZL/54 **SOM Lab Ref:** 4902 (Page-2/2)

Dated: 23-09-2024 **Dated:** 01-10-2024

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

Gauge Length: 8 inch **Sample Type:** Deformed Bar (Aziz 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	1.494	6	0.748	0.44	0.439	12.66	20.25	63460	63610	101530	101760	1.40	8.0	17.5	
2	1.488	6	0.746	0.44	0.437	12.64	20.00	63360	63800	100250	100940	1.40	8.0	17.5	
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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

Ali Zahid Latif, RE **Test Performed By:** **Dr. /Engr.** Wasim Abbas

Nespak-Turkpak JV Lhr.(Reconstruction of Old P&D Building,Lahore)

Client Reference: 4674/P&D/13/09/AZL/49 **SOM Lab Ref:** 4902 (Page-1/2)

Dated: 16-09-2024 **Dated:** 01-10-2024

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

Gauge Length: 8 inch **Sample Type:** Deformed Bar (Aziz 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	0.673	4	0.502	0.20	0.198	5.93	8.87	65420	66090	97800	98780	1.20	8.0	15.0	
2	0.670	4	0.501	0.20	0.197	5.88	8.97	64860	65850	98920	100430	1.20	8.0	15.0	
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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 Asif Hameed **Test Performed By:** **Dr. /Engr.** Asad Ali Gillani

Imperium Developers,Lahore.(Const Of Sixty6 at Gulberh-III,Lahore)

Client Reference: IMP/PM/66/04/124 **SOM Lab Ref:** 4903 (Page-1/1)

Dated: 01-10-2024 **Dated:** 01-10-2024

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^2	in^2	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	0.663	4	0.498	0.20	0.195	6.47	8.46	71380	73210	93300	95690	1.20	8.0	15.0	
2	0.665	4	0.498	0.20	0.195	6.44	8.51	71040	72870	93860	96270	1.10	8.0	13.8	
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Witnessed By: M.Husnain Imran

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