Arfan Nazir, Manager Civil
Nishat Mills Ltd.

Test Performed By: **Dr. /Engr.** Nauman Khurram

Client Reference: NDF/FSST/001
Dated: 07-01-2025

SOM Lab Ref: 527 (Page-1/1)
Dated: 08-01-2025

Test: Tension Test
Guage Length: 200 mm

Test Specification: ASTM-A-615
Sample Type: MS Def Bar (Five Star 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)				
	kg/m	mm	mm	mm^2	mm^2	kN	kN	MPa	MPa	MPa	MPa	mm	mm	%	
1	4.044	25	25.61	491	515	222.50	349.70	453	433	712	680	40.0	200	20.0	
2	4.023	25	25.55	491	513	226.70	353.20	462	443	719	690	40.0	200	20.0	
3	2.208	20	18.93	314	281	129.50	205.00	412	461	653	729	35.0	200	17.5	
4	2.199	20	18.89	314	280	129.70	204.20	413	464	650	729	32.5	200	16.3	
5	1.567	16	15.94	201	200	90.70	138.50	451	455	689	694	35.0	200	17.5	
6	1.570	16	15.96	201	200	92.00	138.70	458	460	690	694	37.5	200	18.8	
7	1.010	12	12.80	113	129	59.70	88.20	528	465	781	686	35.0	200	17.5	
8	0.998	12	12.73	113	127	58.00	88.50	513	457	783	696	30.0	200	15.0	
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-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

BEND TEST:

25mm	Sample bend through 180 degrees Satisfactorily without any crack
20mm	Sample bend through 180 degrees Satisfactorily without any crack
16mm	Sample bend through 180 degrees Satisfactorily without any crack
12mm	Sample bend through 180 degrees Satisfactorily without any crack

Note:-

Only Twelve Samples Received and Tested

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

Jawad Qayyum Khan
Gillani
Resident Engineer,
NESPAK Sargodha.

Test Performed by: S. Asad Ali

Project: Construction of Flyover at 47/Pull Length 4400 RFT in Distt Sargodha.

Client Reference No.: 4376/JQK/24/7344 Dated: 26-12-2024

SOM Lab Ref: CED/SOM/535-578 (Page 1/2) Dated: 08-01-2024

Test Type: Load Test
Sample Type: Saw-Tooth Type Metallic Expansion Joint
Test Standard: Non-standard Test

Load Test Results

Sr. No.	Sample Type	Max Load (kN)	Remarks
1	As mentioned above	101.2	Maximum load carried by one tooth of expansion joint

Load-Deflection Data

Load, kN	0	10	20	30	40	50	60	70	80	90	100
Deflection, mm	0	0.45	0.73	1.09	1.82	3.30	5.08	6.73	7.34	8.12	9.39

Note: Dial gauge was removed after 100kN load for safety purpose

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

Jawad Qayyum Khan
Gillani
Resident Engineer,
NESPAK Sargodha.

Test Performed by: S. Asad Ali

Project: Construction of Flyover at 47/Pull Length 4400 RFT in Distt Sargodha.

Client Reference No.: 4376/JQK/24/7344 Dated: 26-12-2024

SOM Lab Ref: CED/SOM/535-578 (Page 2/2) Dated: 08-01-2024

Test Type: Tension Test (Aluminum)

Sample Type: Saw Tooth Type Metallic Expansion Joint

Tension Test Results

Sr. No.	Sample Size	Area (mm^2)	Yield Load (kN)	Ultimate Load (kN)	Yield Strength (MPa)	Ultimate Strength (MPa)	Elongation (%)
1	8.2 x 4.0	32.80	8.0	10.7	243.90	326.22	10.0
2	8.4 x 4.0	33.60	8.2	11.0	244.05	327.38	12.5

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

Muhammad Arif,CM **Test Performed By:** **Dr. /Engr.** Asad Ali Gillani

For Thaheem Construction Co.(Briell Pharm at Sunder Industrial Estate Lahore)

Client Reference: TCC/UET/320 **SOM Lab Ref:** 526 (Page-1/1)

Dated: 04-01-2025 **Dated:** 08-01-2025

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	2.690	8	1.004	0.79	0.791	22.94	35.95	64030	63950	100370	100250	1.60	8.0	20.0	
2	2.702	8	1.005	0.79	0.794	22.53	35.68	62890	62580	99600	99100	1.70	8.0	21.3	
3	1.477	6	0.743	0.44	0.434	13.25	21.02	66430	67340	105360	106820	1.30	8.0	16.3	
4	1.481	6	0.744	0.44	0.435	13.58	21.12	68060	68840	105870	107090	1.20	8.0	15.0	
5	0.671	4	0.501	0.20	0.197	6.60	9.70	72730	73840	107010	108640	1.40	8.0	17.5	
6	0.664	4	0.498	0.20	0.195	6.75	9.53	74420	76320	105100	107800	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

Muhammad Shabbir Sandhu **Test Performed By:** **Dr. /Engr.** Nauman Khurram

ME NESPAK,EPCM Consultants Swl.(PICIIP)(Wastewater Treatment Plant in North Zone e Sahiwal)

Client Reference: 3976/11/MSS/SWL/WWTP/01/817 **SOM Lab Ref:** 528,530,533(P-1/1)

Dated: 31-12-2024 **Dated:** 08-01-2025

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	1.514	6	0.753	0.44	0.445	17.15	21.15	85940	84980	106020	104830	1.10	8.0	13.8	Ittefaq
2	1.506	6	0.751	0.44	0.443	16.02	20.29	80320	79780	101680	100990	1.10	8.0	13.8	Ittefaq
3	0.667	4	0.500	0.20	0.196	6.60	8.56	72730	74210	94420	96350	1.50	8.0	18.8	Sheikhoo
4	0.668	4	0.500	0.20	0.196	6.65	8.58	73290	74790	94650	96580	1.50	8.0	18.8	Sheikhoo
5	0.667	4	0.500	0.20	0.196	6.47	8.48	71380	72840	93530	95430	1.40	8.0	17.5	Sheikhoo
6	0.668	4	0.500	0.20	0.196	6.49	8.51	71610	73070	93860	95780	1.30	8.0	16.3	Sheikhoo
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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
# 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

Muhammad Shabbir Sandhu **Test Performed By:** **Dr. /Engr.** Nauman Khurram

NESPAK,EPCM Consultants Swl.(PICIIP)(Wastewater Treatment Plant in North Zone e Sahiwal)

SOM Lab

Client Reference: 3976/11/MSS/SWL/WWTP/01/827 **Ref:** 529 (Page-1/1)

Dated: 01-01-2025 **Dated:** 08-01-2025

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

Gauge Length: 8 inch **Sample Type:** Deformed Bar (Ittefaq 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	0.670	4	0.501	0.20	0.197	7.65	9.58	84310	85590	105670	107270	0.90	8.0	11.3	
2	0.670	4	0.501	0.20	0.197	7.59	9.60	83750	85020	105890	107500	1.00	8.0	12.5	
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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

Muhammad Shabbir Sandhu **Test Performed By:** **Dr. /Engr.** Nauman Khurram

ME NESPAK,EPCM Consultants Swl.(PICIIP)(Wastewater Treatment Plant in North Zone e Sahiwal)

Client Reference: 3976/11/MSS/SWL/WWTP/01/846 **SOM Lab Ref:** 531 (Page-1/1)

Dated: 06-01-2025 **Dated:** 08-01-2025

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

Gauge Length: 8 inch **Sample Type:** Deformed Bar (Ittefaq 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	0.670	4	0.501	0.20	0.197	7.61	9.76	83970	85250	107580	109210	1.00	8.0	12.5	
2	0.671	4	0.501	0.20	0.197	7.72	9.70	85100	86390	107010	108640	1.00	8.0	12.5	
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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

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

Tawasul Developers (Pvt) Ltd Lahore (Creek Tower 6-D Upper Mall Lahore)

Client Reference: Nil **SOM Lab Ref:** 532 (Page-1/1)

Dated: 08-01-2025 **Dated:** 08-01-2025

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	2.630	8	0.992	0.79	0.773	24.59	33.76	68640	70150	94250	96330	1.50	8.0	18.8	
2	2.605	8	0.988	0.79	0.766	24.52	33.44	68440	70590	93340	96270	1.60	8.0	20.0	
3	1.495	6	0.748	0.44	0.439	14.48	19.26	72560	72720	96520	96740	1.50	8.0	18.8	
4	1.495	6	0.748	0.44	0.439	15.09	19.57	75620	75790	98100	98330	1.60	8.0	20.0	
5	0.584	4	0.468	0.20	0.172	5.88	7.61	64860	75420	83970	97640	1.50	8.0	18.8	
6	0.589	4	0.469	0.20	0.173	6.03	7.80	66550	76930	85990	99410	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 Nine 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.** Nauman Khurram

NESPAK (4376) Sargodha. (Const Of Flyover at 47/Pull Length 4400 RFT in Distt Sargodha)

Client Reference: RE/4376/JQK/25/7364 **SOM Lab Ref:** 534 (Page-1/1)

Dated: 01-01-2025 **Dated:** 08-01-2025

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

Gauge Length: 8 inch **Sample Type:** Deformed Bar (Sheikhoo 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	2.658	8	0.997	0.79	0.781	25.89	35.02	72290	73120	97750	98880	1.20	8.0	15.0	
2	2.650	8	0.996	0.79	0.779	25.89	35.02	72290	73310	97750	99130	1.50	8.0	18.8	
3	1.476	6	0.743	0.44	0.434	14.39	19.54	72150	73150	97950	99300	1.30	8.0	16.3	
4	1.471	6	0.742	0.44	0.432	14.65	19.72	73430	74790	98870	100700	1.20	8.0	15.0	
5	0.650	4	0.493	0.20	0.191	6.47	8.77	71380	74750	96670	101230	1.50	8.0	18.8	
6	0.658	4	0.496	0.20	0.193	6.49	8.94	71610	74200	98580	102160	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 Nine Samples Received and Tested

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

Zahid Mehmood **Test Performed By:** **Dr. /Engr.** Nauman Khurram

CEO Lucky Mall Lahore.(Lucky Mall-1188,Tufail Road Lahore Cantt,Lahore)

Client Reference: Steel-3-c01 **SOM Lab Ref:** 536 (Page-1/1)

Dated: 06-01-2025 **Dated:** 08-01-2025

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

Gauge Length: 8 inch **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	2.695	8	1.004	0.79	0.792	26.88	35.85	75050	74860	100090	99830	1.40	8.0	17.5	
2	2.687	8	1.003	0.79	0.790	26.22	35.32	73200	73200	98610	98610	1.50	8.0	18.8	
3	1.473	6	0.743	0.44	0.433	14.95	19.39	74960	76170	97180	98750	1.50	8.0	18.8	
4	1.474	6	0.743	0.44	0.433	14.55	19.08	72910	74090	95650	97200	1.40	8.0	17.5	
5	0.665	4	0.498	0.20	0.195	6.57	8.84	72510	74360	97460	99960	1.20	8.0	15.0	
6	0.665	4	0.498	0.20	0.195	6.83	8.69	75320	77250	95770	98230	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