Resident Engineer/Team Leader **Test Performed By:** **Dr. /Engr.** S. Asad Ali Gillani

Prime Engineering Consultat, Kallurkot Brdge Project

Client Reference: KK-DIK-BR-PJ/2021/275 **Dated:** 21-03-2021

SOM Lab Ref: CED/SOM/4086(Page-1/1) **Dated:** 22-03-2021

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

Sample Type: Deformed Bar(Pak Steel) **Gauge Length:** 200 mm

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	3.917	25	25.21	491	499	266.70	334.50	543	535	681	671	32.5	200	16.3	
2	2.436	20	19.88	314	310	153.70	210.50	489	496	670	679	30.0	200	15.0	
3	0.893	12	12.04	113	114	51.70	74.70	457	455	660	657	30.0	200	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

BEND TEST:

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

Shahid Builders (Pvt) Ltd. **Test Performed By:** **Dr. /Engr.** S. Asad Ali Gillani

Construction of Proposed Trust School For Amir Town Harbanspura, Lahore

Client Reference: SBL/2021/UET-TEDS/1222 **SOM Lab Ref:** 4087 (Page-1/1)

Dated: 22-03-2021 **Dated:** 22-03-2021

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	2.617	8	0.990	0.79	0.769	26.66	35.49	74420	76450	99090	101800	1.60	8.0	20.0	
2	2.616	8	0.990	0.79	0.769	26.32	35.29	73480	75490	98520	101210	1.50	8.0	18.8	
3	1.498	6	0.748	0.44	0.440	13.83	19.13	69340	69340	95910	95910	1.20	8.0	15.0	
4	1.498	6	0.748	0.44	0.440	13.66	18.98	68470	68470	95140	95140	1.10	8.0	13.8	
5	0.674	4	0.502	0.20	0.198	6.22	8.63	68570	69260	95210	96170	1.30	8.0	16.3	
6	0.675	4	0.502	0.20	0.198	6.17	8.63	68010	68700	95210	96170	1.20	8.0	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

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

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

Senior Engineer, Mansoor Mazhar & Associates, Lahore

Client Reference: nil **SOM Lab Ref:** 4088(Page-1/1)

Dated: 22-03-2021 **Dated:** 22-03-2021

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	2.589	8	0.984	0.79	0.761	23.36	33.69	65230	67710	94050	97640	1.50	8.0	18.8	
2	1.460	6	0.739	0.44	0.429	12.97	17.91	65000	66660	89780	92080	1.40	8.0	17.5	
3	0.667	4	0.500	0.20	0.196	6.34	8.15	69920	71350	89930	91760	1.40	8.0	17.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

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

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

Salman Developers, Site Office: 8-E/III Gulberg-III, Lahore (Project: Grand Square Mall)

Client Reference: nil **SOM Lab Ref:** 4089(Page-1/1)

Dated: 22-03-2021 **Dated:** 22-03-2021

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

Guage 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	2.607	8	0.988	0.79	0.766	27.78	36.82	77550	79980	102790	106010	1.40	8.0	17.5	
2	2.604	8	0.987	0.79	0.765	24.72	32.52	69010	71270	90780	93750	1.20	8.0	15.0	
3	1.467	6	0.741	0.44	0.431	13.02	18.62	65250	66610	93350	95300	1.10	8.0	13.8	
4	1.465	6	0.741	0.44	0.431	13.17	18.93	66020	67400	94880	96870	1.40	8.0	17.5	
5	0.667	4	0.500	0.20	0.196	5.52	8.77	60930	62170	96670	98650	1.20	8.0	15.0	
6	0.662	4	0.498	0.20	0.195	5.52	8.77	60930	62490	96670	99150	1.20	8.0	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

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

Project Manager, IZHAR Construction (Pvt) Ltd. Lahore

Client Reference: ICPL/QFNST/20/03 **SOM Lab Ref:** 4090-4096(Page-1/1)

Dated: 20-03-2021 **Dated:** 22-03-2021

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	2.588	8	0.984	0.79	0.761	25.96	32.13	72480	75250	89700	93120	1.50	8.0	18.8	
2	2.597	8	0.986	0.79	0.763	25.96	32.13	72480	75050	89700	92870	1.50	8.0	18.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

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

Engr. Muddasir Tahir
Construction Manager, Zameen Aurum, Lahore

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

Client Reference: ZD/ZA/STR007
Dated: 22-03-2021

SOM Lab Ref: 4091(Page-1/1)
Dated: 22-03-2021

Test: Tension Test & Bend Test
Test Specification: ASTM-A-615
Gauge Length: 8 inch
Sample Type: Deformed Bar (Batala 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	2.623	8	0.991	0.79	0.771	23.96	35.78	66880	68530	99890	102350	1.20	8.0	15.0	
2	2.625	8	0.991	0.79	0.771	24.06	35.17	67160	68820	98180	100600	1.40	8.0	17.5	
3	1.491	6	0.747	0.44	0.438	13.63	19.67	68320	68630	98610	99060	1.20	8.0	15.0	
4	1.490	6	0.747	0.44	0.438	14.07	19.98	70510	70840	100150	100600	1.10	8.0	13.8	
5	0.661	4	0.497	0.20	0.194	6.42	8.87	70820	73010	97800	100820	1.00	8.0	12.5	
6	0.661	4	0.497	0.20	0.194	7.14	9.28	78690	81120	102290	105460	1.10	8.0	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

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

Abdul Ghafar
Project Manager Liberty Builders, Lahore

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

Client Reference: ST/UET/ 20210322-40
Dated: 22-03-2021

SOM Lab Ref: 4092(Page-1/1)
Dated: 22-03-2021

Test: Tension Test & Bend Test
Test Specification: ASTM-A-615
Gauge Length: 8 inch
Sample Type: Deformed Bar(Batala Premium)

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	23.14	35.12	64600	66020	98040	100190	1.10	8.0	13.8	
2	2.645	8	0.995	0.79	0.777	23.24	35.17	64890	65970	98180	99820	1.20	8.0	15.0	
3	2.642	8	0.994	0.79	0.776	23.65	35.42	66020	67220	98890	100680	1.20	8.0	15.0	
4	0.671	4	0.501	0.20	0.197	6.03	8.97	66550	67560	98920	100430	1.30	8.0	16.3	
5	0.667	4	0.500	0.20	0.196	5.91	8.77	65200	66530	96670	98650	1.10	8.0	13.8	
6	0.660	4	0.497	0.20	0.194	5.81	8.84	64080	66060	97460	100470	1.10	8.0	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

BEND TEST:

# 8	Sample bend through 180 degrees Satisfactorily without any crack

Note:-

Only Eight 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 Gillani

Client Reference: ST/UET/ 20210322-32
Dated: 22-03-2021

SOM Lab Ref: 4093(Page-1/1)
Dated: 22-03-2021

Test: Tension Test & Bend Test
Test Specification: ASTM-A-615
Gauge Length: 8 inch
Sample Type: Deformed Bar(Batala Premium)

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	2.661	8	0.998	0.79	0.782	22.14	32.03	61810	62450	89420	90330	1.40	8.0	17.5	
2	2.657	8	0.997	0.79	0.781	22.65	32.93	63240	63960	91920	92980	1.40	8.0	17.5	
3	2.590	8	0.984	0.79	0.761	23.19	32.28	64740	67210	90130	93560	1.50	8.0	18.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

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

BeaCon Impex Private Ltd.
Faisalabad

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

Client Reference: B. I/Civil/21-111
Dated: 18-03-2021

SOM Lab Ref: 4095(Page - 1/1)
Dated: 22-03-2021

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	2.614	8	0.989	0.79	0.768	25.28	33.35	70580	72600	93120	95780	1.50	8.0	18.8	
2	2.626	8	0.991	0.79	0.772	25.33	33.46	70720	72370	93400	95580	1.30	8.0	16.3	
3	1.479	6	0.744	0.44	0.435	16.16	20.69	80990	81920	103720	104920	1.00	8.0	12.5	
4	1.478	6	0.743	0.44	0.434	16.48	21.10	82620	83760	105770	107230	1.00	8.0	12.5	
5	0.672	4	0.501	0.20	0.197	5.96	9.02	65760	66760	99480	101000	1.10	8.0	13.8	
6	0.673	4	0.502	0.20	0.198	5.86	8.97	64640	65290	98920	99920	1.20	8.0	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

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

Test Performed by: Dr. S. Asad Ali Gillani

Khalid Mahmood
Resident Engineer
NESPAK (Pvt) Ltd.
Resident Construction Supervision for Establishment of Dera Ghazi Khan
Institute of Cardiology

Client Reference: 4161/RE/SFMKB/DGK/259 Dated 17-03-2021
SOM Laboratory Reference: CED/SOM/4094(Page-1/1) Dated 22-03-2021
Test: Tensile Strength, Elongation, Hardness Test,
Sample Type: Bitumen Membrane Sheet

TENSILE STRENGTH AND ELONGATION TEST. (AS PER ASTM-D-412)

Sample Testing Condition	Tensile Strength (Mpa)	% Elongation at Break
Transverse	**4.42**	**84.0**
Longitudinal	**3.09**	**70.0**

HARDNESS TEST (AS PER ASTM-D-2240)

S. No	Hardness (A Shore)
1	85.0