

Test Performed by: .S. Asad Ali Gillani

Abid Rauf  
Resident Engineer  
NESPAK Gujranwala.  
(Const Of Dual Carriageway From GT Road To Lahore-Sialkot Motorway  
L = 15.20 Km, Distt Gujranwala)

Client Reference No.: 103/EW/GRW/AR/Lab/43

Dated: 23-01-2024

SOM Lab Ref: CED/SOM/3591 (Page 1/2)

Dated: 30-01-2024

Test Type: Tensile Test

Specification: ASTM A-36

Sample Type: W Beam Steel Rail, Steel Post

Gauge Length: 2 inches

### Tensile and Bend Test Results

Sr. No.	Size of Steel 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 (W Beam)	21.1x 3.3	69.63	26.20	34.70	376.27	498.35	0.50	25.00
2 (W Beam)	21.1x 3.4	71.74	27.20	34.50	379.15	480.90	0.60	30.00
3 (Post)	24.1x 7.1	171.11	65.20	73.70	381.04	430.72	0.60	30.00
4 (Post)	24.0x 7.1	170.40	63.00	78.00	369.72	457.75	0.50	25.00
5 (W Beam)	Steel plate strip sample, Bend through 180 degrees satisfactorily without any crack							
6 (Post)	Steel plate 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)

Test Performed by: .S. Asad Ali Gillani

Abid Rauf

Resident Engineer

NESPAK Gujranwala.

(Const Of Dual Carriageway From GT Road To Lahore-Sialkot Motorway

L = 15.20 Km,Distt Gujranwala)

Client Reference No.: 103/EW/GRW/AR/Lab/43

Dated: 23-01-2024

SOM Lab Ref: CED/SOM/3591 (Page 2/2)

Dated: 30-01-2024

Test Type: Tensile Test

Sample Type: Splice Bolt (15.9mm)

Gauge Length: 1 inches

#### Tensile Test Results

Sr. No.	Tested Diameter of Bolt (mm)	X Section Area (mm <sup>2</sup> )	Ultimate Load (kN)	Ultimate Tensile Stress (MPa)	Elongatio <sub>n</sub> (inch)	% Elongatio <sub>n</sub>
1	11.0	95.03	87.5	920.76	0.25	25.0

Engr.Ejaz Ali Bukhari,RE

Test Performed By:

Dr. /Engr.

Asad Ali Gillani

ACC Site Office KPDI.(Const Of Kot Pindi Das Interchange On Lahore-Islamabad Motorway)

Client Reference: KPD/QAI/RE/23/85

Dated: 25-01-2024

SOM Lab Ref: CED/SOM/3600(Page-1/1)

Dated: 30-01-2024

Test: Tension Test & Bend Test

Test Specification: ASTM-A 615

Sample Type: Deformed Bar

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 <sup>2</sup>	mm <sup>2</sup>	kN	kN	MPa	MPa	MPa	MPa	mm	mm	%	
1	2.401	20	19.74	314	306	153.20	212.00	488	501	675	693	32.5	200	16.3	
2	2.405	20	19.75	314	306	149.70	207.50	477	489	660	678	35.0	200	17.5	
3	1.537	16	15.79	201	196	98.70	136.50	491	505	679	698	30.0	200	15.0	
4	1.528	16	15.74	201	195	116.00	164.50	577	597	818	846	30.0	200	15.0	
5	0.960	12	12.48	113	122	61.20	82.20	541	501	727	673	27.5	200	13.8	
6	0.963	12	12.50	113	123	61.70	82.50	546	503	729	673	30.0	200	15.0	
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**BEND TEST:**

20mm	Sample bend through 180 degrees Satisfactorily without any crack	<b>Note:-</b>  Only Nine Samples Received and Tested
16mm	Sample bend through 180 degrees Satisfactorily without any crack	
12mm	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)

KAY & EMMS (Pvt) Ltd.  
Faisalabad.

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

Client Reference: Nil  
Dated: 30-01-2024

SOM Lab  
Ref: 3590(Page-1/1)  
Dated: 30-01-2024

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 <sup>2</sup>	in <sup>2</sup>	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	2.601	8	0.986	0.79	0.764	25.76	33.71	71920	74360	94110	97310	1.50	8.0	18.8	
2	2.591	8	0.984	0.79	0.761	25.38	33.71	70860	73560	94110	97700	1.40	8.0	17.5	
3	1.479	6	0.744	0.44	0.435	14.37	18.96	72050	72870	95040	96130	1.20	8.0	15.0	
4	1.481	6	0.744	0.44	0.435	14.27	19.16	71540	72360	96060	97160	1.20	8.0	15.0	
5	0.670	4	0.501	0.20	0.197	6.60	8.58	72730	73840	94650	96090	1.20	8.0	15.0	
6	0.680	4	0.505	0.20	0.200	6.65	8.69	73290	73290	95770	95770	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 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)

M. Ali Haider Ch.

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

PE Prosperity Consultants Lhr.(EPC/Turnkey Basis Of 132/11.5 KV Grid Station #1 DHA Gujranwala)

**Client Reference:** DHA Guj/GRID/876

**SOM Lab**

**Ref:** 3592 (Page-1/1)

**Dated:** 29-01-2024

**Dated:** 30-01-2024

**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 <sup>2</sup>	in <sup>2</sup>	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	2.605	8	0.988	0.79	0.766	26.96	34.61	75270	77630	96620	99640	1.30	8.0	16.3	
2	2.667	8	0.999	0.79	0.784	25.89	34.32	72290	72840	95820	96550	1.20	8.0	15.0	
3	0.674	4	0.502	0.20	0.198	7.10	9.09	78350	79140	100270	101280	1.10	8.0	13.8	
4	0.672	4	0.501	0.20	0.197	6.93	8.87	76440	77600	97800	99290	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 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)

Sub Divisional officer,

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

MSD No.II,GOR-III Lhr.(Const Of Multistorey Building For Residences For Staff Colony at Chauburgi)

**Client Reference:** 243sd/Gor-III,Lhr

**SOM Lab**

**Ref:** 3593 (Page-1/1)

**Dated:** 27-12-2023

**Dated:** 30-01-2024

**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	2.706	8	1.006	0.79	0.795	30.65	37.79	85570	85040	105490	104830	1.40	8.0	17.5	
2	2.705	8	1.006	0.79	0.795	29.94	37.99	83580	83060	106060	105400	1.50	8.0	18.8	
3	1.512	6	0.752	0.44	0.444	15.01	20.03	75210	74540	100400	99500	1.40	8.0	17.5	
4	1.511	6	0.752	0.44	0.444	15.09	20.08	75620	74940	100660	99750	1.30	8.0	16.3	
5	0.666	4	0.500	0.20	0.196	6.52	8.79	71940	73410	96900	98880	1.10	8.0	13.8	
6	0.066	4	0.156	0.20	0.019	6.12	8.38	67450	709930	92400	972600	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)

M.Waqas Anwar,RE

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

Nespak Lahore.(Dev Of a Controlled Access Corridor Facility From Niazi Interchange to Babu Sabu)

**Client Reference:** 3772/103/NBI(P-II)/MWA/04/225

**SOM Lab**

**Ref:** 3594 (Page-1/3)

**Dated:** 17-01-2024

**Dated:** 30-01-2024

**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 <sup>2</sup>	in <sup>2</sup>	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	1.500	6	0.749	0.44	0.441	13.17	20.31	66020	65870	101780	101550	1.40	8.0	17.5	
2	1.489	6	0.747	0.44	0.438	12.97	20.18	65000	65290	101170	101630	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)

M.Waqas Anwar,RE

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

Nespak Lahore.(Dev Of a Controlled Access Corridor Facility From Niazi Interchange to Babu Sabu)

Client Reference: 3772/103/NBI(P-II)/MWA/04/224

SOM Lab

Ref: 3594 (Page-2/3)

Dated: 17-01-2024

Dated: 30-01-2024

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 <sup>2</sup>	in <sup>2</sup>	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	1.029	5	0.620	0.31	0.302	8.74	13.71	62150	63800	97540	100130	1.30	8.0	16.3	
2	1.036	5	0.622	0.31	0.304	8.77	13.53	62370	63600	96240	98140	1.20	8.0	15.0	
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**BEND TEST:**

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



M.Waqas Anwar,RE

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

Nespak Lahore.(Dev Of a Controlled Access Corridor Facility From Niazi Interchange to Babu Sabu)

Client Reference: 3772/103/NBI(P-II)/MWA/04/223

SOM Lab

Ref: 3594 (Page-3/3)

Dated: 17-01-2024

Dated: 30-01-2024

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 <sup>2</sup>	in <sup>2</sup>	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	0.683	4	0.506	0.20	0.201	6.07	8.77	66890	66550	96670	96190	1.10	8.0	13.8	
2	0.683	4	0.506	0.20	0.201	5.98	8.69	65990	65660	95770	95300	1.10	8.0	13.8	
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**BEND TEST:**

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

Muhammad Farman,RE

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

ECSP Jinnah Hospital Lahore.(Const Of Supervision For Revamping Of Jinnah Hospital)

Client Reference: ECSP/RE/387/04

SOM Lab

Ref: 3595 (Page-1/1)

Dated: 21-01-2024

Dated: 30-01-2024

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	2.561	8	0.979	0.79	0.753	24.82	34.78	69300	72700	97100	101870	1.40	8.0	17.5	
2	2.595	8	0.986	0.79	0.763	24.46	34.40	68300	70720	96050	99450	1.30	8.0	16.3	
3	1.496	6	0.748	0.44	0.440	14.27	19.01	71540	71540	95290	95290	1.40	8.0	17.5	
4	1.497	6	0.748	0.44	0.440	14.12	19.01	70770	70770	95290	95290	1.00	8.0	12.5	
5	0.666	4	0.500	0.20	0.196	6.07	8.39	66890	68250	92510	94400	1.50	8.0	18.8	
6	0.664	4	0.498	0.20	0.195	6.01	8.36	66320	68020	92180	94540	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 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)

Syed Mubashar Hassan

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

RE 4376-E NESPAK.(Dualization Of Sargodha Khushab Mianwali Road Group-I)

Client Reference: RE/4376-E/SMH/4a/263

SOM Lab

Ref: 3596 (Page-1/1)

Dated: 24-03-2023

Dated: 30-01-2024

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	2.688	8	1.003	0.79	0.790	29.38	35.12	82020	82020	98040	98040	1.30	8.0	16.3	Sheikhoo
2	2.717	8	1.008	0.79	0.798	26.91	33.59	75130	74380	93770	92830	1.40	8.0	17.5	Sheikhoo
3	1.481	6	0.744	0.44	0.435	14.60	19.11	73170	74010	95800	96910	1.20	8.0	15.0	Sheikhoo
4	1.491	6	0.747	0.44	0.438	14.70	19.13	73680	74020	95910	96340	1.50	8.0	18.8	Sheikhoo
5	1.504	6	0.750	0.44	0.442	14.09	18.45	70620	70300	92480	92060	1.20	8.0	15.0	Pak
6	1.515	6	0.753	0.44	0.445	14.53	18.73	72810	71990	93860	92810	1.30	8.0	16.3	Pak
7	0.666	4	0.500	0.20	0.196	6.95	8.94	76660	78230	98580	100600	1.20	8.0	15.0	Pak
8	0.672	4	0.501	0.20	0.197	6.85	8.89	75540	76690	98020	99510	1.30	8.0	16.3	Pak
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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
# 6	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: Please always confirm the results of above report on web [www.uet-civil.edu.pk](http://www.uet-civil.edu.pk)

M.Usman Rauf,RE

Test Performed By:

Dr. /Engr. Asad Ali Gillani

NESPAK.(Rehb of Road From Kot Radha Kishan to Kasur Length = 31.00 Km)

Client Reference: 3811/103/MUR104/1129

SOM Lab

Ref: 3597 (Page-1/1)

Dated: 17-01-2024

Dated: 30-01-2024

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	2.719	8	1.009	0.79	0.799	26.07	33.51	72770	71950	93540	92490	1.50	8.0	18.8	
2	2.706	8	1.006	0.79	0.795	25.69	33.30	71720	71270	92970	92390	1.40	8.0	17.5	
3	1.497	6	0.748	0.44	0.440	13.35	18.47	66940	66940	92590	92590	1.30	8.0	16.3	
4	1.495	6	0.748	0.44	0.439	13.43	18.55	67290	67450	92990	93210	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 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)

Khalid Yousaf,ARE

Test Performed By: Dr. /Engr. Irfan Ul Hassan

MMP Pkg-01 Jhelum.(Rehb/Construction of Altaf Park Jhelum City,Pkg#01,under PCP)

Client Reference: ARE/JHE/AP/MC-05

SOM Lab

Ref: 3598 (Page-1/1)

Dated: 29-01-2024

Dated: 30-01-2024

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 <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	14.48	18.83	72560	73730	94370	95900	1.30	8.0	16.3	
2	1.485	6	0.745	0.44	0.436	14.75	19.01	73940	74610	95290	96170	1.40	8.0	17.5	
3	0.668	4	0.500	0.20	0.196	7.29	8.36	80370	82010	92180	94060	1.00	8.0	12.5	
4	0.666	4	0.500	0.20	0.196	6.90	8.23	76100	77660	90720	92570	1.10	8.0	13.8	
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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)

Yousaf Zaman,PM/RE

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

Osmani & Compny, Pakpattan. (Engg Design & Const. Supervision For PRSWSSP Cluster Central II)

Client Reference: PM/OCL/PRSWSSP/EDCS/Pkg-5/23/13

SOM Lab

Ref: 3599 (Page-1/1)

Dated: 30-01-2024

Dated: 30-01-2024

Test: Tension Test & Bend Test

Test Specification:

ASTM-A-615

Gauge Length: 8 inch

Sample Type:

Deformed Bar (Markhor 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	2.634	8	0.993	0.79	0.774	23.36	33.54	65230	66580	93630	95560	1.40	8.0	17.5	
2	2.665	8	0.998	0.79	0.783	22.73	33.33	63460	64030	93060	93890	1.40	8.0	17.5	
3	1.525	6	0.755	0.44	0.448	13.93	19.93	69850	68600	99890	98110	1.30	8.0	16.3	
4	1.503	6	0.750	0.44	0.442	14.07	19.78	70510	70190	99130	98680	1.40	8.0	17.5	
5	0.672	4	0.501	0.20	0.197	6.57	8.82	72510	73610	97230	98720	1.10	8.0	13.8	
6	0.675	4	0.502	0.20	0.198	6.34	8.99	69920	70630	99150	100150	1.20	8.0	15.0	
7	0.375	3	0.374	0.11	0.110	3.36	5.17	67450	67450	103620	103620	1.00	8.0	12.5	
8	0.373	3	0.374	0.11	0.110	3.38	5.20	67860	67860	104230	104230	1.00	8.0	12.5	
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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
# 6	Sample bend through 180 degrees Satisfactorily without any crack	
# 4	Sample bend through 180 degrees Satisfactorily without any crack	
# 3	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)

Yousaf Zaman, PM/RE

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

Osmani & Compny, Pakpattan. (Engg Design & Const. Supervision For PRSWSSP Cluster Central II)

Client Reference: PM/OCL/PRSWSSP/EDCS/Pkg-04/23/12

SOM Lab

Ref: 3601 (Page-1/1)

Dated: 30-01-2024

Dated: 30-01-2024

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	2.653	8	0.997	0.79	0.780	26.63	35.09	74330	75290	97950	99210	1.20	8.0	15.0	
2	1.482	6	0.745	0.44	0.436	15.60	19.47	78180	78890	97590	98490	1.30	8.0	16.3	
3	0.676	4	0.503	0.20	0.199	6.78	8.77	74750	75130	96670	97160	1.20	8.0	15.0	
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**BEND TEST:**

# 8	Sample bend through 180 degrees Satisfactorily without any crack	<p><b>Note:-</b></p> <p>Only Six Samples Received and Tested</p>
# 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)

Yousaf Zaman, PM/RE

Test Performed By: Dr. /Engr. Irfan Ul Hassan

Osmani & Compny, Pakpattan. (Engg Design & Const. Supervision For PRSWSSP Cluster Central II)

Client Reference: PM/OCL/PRSWSSP/EDCS/Pkg-07/23/14

SOM Lab

Ref: 3602 (Page-1/1)

Dated: 30-01-2024

Dated: 30-01-2024

Test: Tension Test & Bend Test

Test Specification:

ASTM-A-615

Gauge Length: 8 inch

Sample Type:

Deformed Bar (Sheikhu 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	2.641	8	0.994	0.79	0.776	26.47	33.97	73910	75240	94820	96530	1.30	8.0	16.3	
2	1.497	6	0.748	0.44	0.440	14.48	19.88	72560	72560	99640	99640	1.30	8.0	16.3	
3	0.675	4	0.502	0.20	0.198	6.85	8.97	75540	76300	98920	99920	1.10	8.0	13.8	
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**BEND TEST:**

# 8	Sample bend through 180 degrees Satisfactorily without any crack	<p><b>Note:-</b></p> <p>Only Six Samples Received and Tested</p>
# 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)