

**Test Performed By:** Dr Asad Ali Gillani

Engr. Anees Ahmed  
Asstt: Resident Engineer  
Indus Associate Consultant (JV)  
Mianwali.

(Rehb and Improvement Balkassar – Mianwali Road on N-130 Pkg-01 & 02)

**Client Reference:** RE/IAC/N-130/2024/93

Dated: 23-09-2024

**SOM Laboratory Reference:** CED/SOM/4915(Page-1/1)

Dated: 03-10-2024

**Test:** Compressive Strength Tests

**Sample Type:** Cat Eyes (Double Side One Yellow and Other Red) **Brand:** E-Lite (Raised Profile Double)

#### Test Results

Sr. No.	Sample Type	Top Dimensions (mm)	Bottom Dimensions (mm)	Thickness (mm)	Inclination (Degree)	Compression Load (Kg)
1	Cat Eyes	69.1 x 34.1	100.0 x 100.2	19.2	25.26°	18552

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

Test Performed by: S. Asad Ali Gillani

Muhammad Qasim  
PM Alwasal Traders & Consultants.  
Lahore.

Client Ref.No.: UET/MP/24001

Dated: 03-10-2024

SOM Lab Ref: CED/SOM/4918 (Page 1/1)

Dated: 03-10-2024

Test Type: Tensile Test

Specification: ASTM A-

36

Sample Type: MS Plates (for Main Column of Monopoles)

Gauge Length: 2 inches

#### Tensile 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	MS Plate (8mm)	26.6 x 8.20	218.12	73.00	98.00	334.68	449.29	0.70	35.00
2	MS Plate (8mm)	30.6 x 8.20	250.92	84.50	114.00	336.76	454.33	0.80	40.00
3	MS Plate (6mm)	28.3 x 6.10	172.63	56.00	74.70	324.39	432.72	0.60	30.00
4	MS Plate (6mm)	29.3 x 6.10	178.73	59.50	79.50	332.90	444.81	0.70	35.00

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

Abdul Azeem  
General Manager, Polymer Tek,  
45-A, S.I.E. #2, Gujranwala-Pakistan.

**Client Reference No.:** Nil  
2024

Dated: 03-10-

**SOM Lab Ref:** CED/SOM/4919 (Page 1/2)  
2024

Dated: 03-10-

**Test Type:** Load Test, Loading Area (6" x 6")

**Sample Type:** FRP Manhole Cover (30 x 30 CM)

### Load Test Results

Sr No.	Sample Type	Ultimate Load (kN)
1	FRP Manhole Cover (Grey)	24.20

**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

Abdul Azeem  
General Manager, Polymer Tek,  
45-A, S.I.E. #2, Gujranwala-Pakistan.

**Client Reference No.:** Nil  
2024

Dated: 03-10-

**SOM Lab Ref:** CED/SOM/4919 (Page 2/2)  
2024

Dated: 03-10-

**Test Type:** Load Test, Loading Area (6" x 6")

**Sample Type:** FRP Manhole Cover (30 x 30 CM)

### Load Test Results

Sr No.	Sample Type	Ultimate Load (Kg)
1	FRP Manhole Cover (White)	22.20

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

AJ Contractors  
DHA Lahore. (Project Tawal Site ID: TWPLDR0006)

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

**Client Reference:** AJ Contractor/Steel/Tawal/14

**SOM Lab Ref:** 4921 (P-1/1)

**Dated:** 18-09-2024

**Dated:** 03-10-2024

**Test:** Tension Test

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

**Gauge 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 <sup>2</sup>	mm <sup>2</sup>	kN	kN	MPa	MPa	MPa	MPa	mm	mm	%	
1	2.248	20	19.08	314	286	153.20	201.20	488	536	641	704	30.0	200	15.0	
2	1.624	16	16.23	201	207	103.20	135.00	513	499	672	653	32.5	200	16.3	
3	0.980	12	12.61	113	125	65.20	84.70	577	523	750	679	27.5	200	13.8	
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**BEND TEST:**

--	No Bend test performed	<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. Adil Jamal, PM  
 MA Engineering Services.(ENGRO ENFRASHARE B2S TOWERS)

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

**Client Reference:** MA/UET/LHR/022  
**SOM Lab Ref:** CED/SOM/4920 (Page-1/1)  
**Test:** Tension Test & Bend Test  
**Sample Type:** Deformed Bar

**Dated:** 10-10-2024  
**Dated:** 03-10-2024  
**Test Specification:** ASTM-A 615  
**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	2.238	20	19.05	314	285	141.70	176.00	451	498	560	618	35.0	200	17.5	
2	1.488	16	15.53	201	190	88.00	121.70	438	465	605	643	27.5	200	13.8	
3	0.986	12	12.65	113	126	54.00	72.20	477	430	638	575	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 Six 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)

Khalid Mahmood  
Pr.Engr (Civil) PAEC.D.G Khan.

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

Client Reference: 1787

SOM Lab

Ref: 4923-24 (Page-1/1)

Dated: 02-10-2024

Dated: 03-10-2024

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 <sup>2</sup>	in <sup>2</sup>	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	0.673	4	0.502	0.20	0.198	6.98	9.28	77000	77780	102290	103330	1.30	8.0	16.3	
2	0.666	4	0.500	0.20	0.196	6.85	9.17	75540	77080	101170	103230	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 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)

Metroplan-Asian JV

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

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

**Client Reference:** Metroplan-Asian JV ET-JHL-RE-246-2024

**SOM Lab**

**Ref:** 4916 (Page-1/1)

**Dated:** 07-09-2024

**Dated:** 03-10-2024

**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 <sup>2</sup>	in <sup>2</sup>	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	1.493	6	0.748	0.44	0.439	14.02	18.91	70260	70420	94780	95000	1.40	8.0	17.5	
2	1.489	6	0.747	0.44	0.438	13.86	18.76	69490	69810	94020	94450	1.40	8.0	17.5	
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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)



Sub Divisional officer,

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

Irrigation Research Sub Div,Lhr.(Recharge of Aquifer For Groundwater Management Punjab)

**Client Reference:** 8-E/1825

**SOM Lab**

**Ref:** 4917 (Page-1/1)

**Dated:** 27-09-2024

**Dated:** 03-10-2024

**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 <sup>2</sup>	in <sup>2</sup>	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	0.666	4	0.500	0.20	0.196	6.80	8.99	74980	76510	99150	101170	0.90	8.0	11.3	
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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)

Muhammad Zain-UI-Abadeen,  
RE NESPAK.(RWMDA For Sore Point at Nishter Park Sports Complex,Lahore)

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

**Client Reference:** 3882/MZA/401

**Dated:** 28-09-2024

**Test:** Tension Test & Bend Test

**Gauge Length:** 8 inch

**Test Specification:**

**Sample Type:**

**SOM Lab**

**Ref:** 4922(Page-1/1)

**Dated:** 03-10-2024

ASTM-A-615

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	2.589	8	0.984	0.79	0.761	26.10	37.82	72850	75630	105580	109600	1.20	8.0	15.0	
2	2.595	8	0.986	0.79	0.763	25.15	37.41	70210	72690	104440	108140	1.40	8.0	17.5	
3	1.480	6	0.744	0.44	0.435	15.26	21.61	76490	77370	108320	109570	1.20	8.0	15.0	
4	1.518	6	0.754	0.44	0.446	15.80	20.36	79200	78130	102040	100660	1.10	8.0	13.8	
5	0.656	4	0.496	0.20	0.193	6.35	8.66	70030	72570	95550	99010	1.00	8.0	12.5	
6	0.661	4	0.497	0.20	0.194	6.17	8.66	68010	70110	95550	98500	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 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)

Kashif Mahmood, AE

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

IT University of Punjab.(Const of Multi-Purpose Buiding at Main Campus Barki Road Lahore)

Client Reference: ITU/OEW/24/333

SOM Lab

Ref: 4925 (Page-1/1)

Dated: 26-09-2024

Dated: 03-10-2024

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 <sup>2</sup>	in <sup>2</sup>	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	1.477	6	0.743	0.44	0.434	15.87	19.93	79560	80660	99890	101270	1.00	8.0	12.5	
2	1.459	6	0.739	0.44	0.429	15.46	19.44	77510	79500	97440	99940	1.10	8.0	13.8	
3	0.673	4	0.502	0.20	0.198	6.34	8.18	69920	70630	90150	91060	1.20	8.0	15.0	
4	0.673	4	0.502	0.20	0.198	6.39	8.12	70480	71190	89590	90500	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 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)

