

Muteen Malik

Test Performed By:

Dr. /Engr.

S. Asad Ali Gillani

Project Engineer, MA Engg. Services, Lahore(Project: Engro Enfrashare B25 Towers)

Client Reference: MA/UETLHR/003

Dated: 12-10-2020

SOM Lab Ref: CED/SOM/3105(Page-1/3)

Dated: 14-10-2020

Test: Tension and 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 ²	mm ²	kN	kN	MPa	MPa	MPa	MPa	mm	mm	%	
1	3.893	25	25.13	491	496	294.00	353.20	599	593	720	713	30.0	200	15.0	
2	2.246	20	19.09	314	286	192.00	221.00	611	672	703	773	25.0	200	12.5	
3	1.563	16	15.92	201	199	90.70	134.20	451	456	667	675	35.0	200	17.5	
4	0.986	12	12.65	113	126	56.00	88.00	495	446	778	701	32.5	200	16.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

BEND TEST:

25mm	Sample bend through 180 degrees Satisfactorily without any crack	Note:- Only Eight Samples Received and Tested
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: Please always confirm the results of above report on web www.uet-civil.edu.pk

Muteen Malik

Test Performed By:

Dr. /Engr.

S. Asad Ali Gillani

Project Engineer, MA Engg. Services, Lahore(Project: Engro Enfrashare B25 Towers)

Client Reference: MA/UETLHR/004

Dated: 12-10-2020

SOM Lab Ref: CED/SOM/3105(Page-2/3)

Dated: 14-10-2020

Test: Tension and 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 ²	mm ²	kN	kN	MPa	MPa	MPa	MPa	mm	mm	%	
1	3.908	25	25.18	491	498	299.00	353.50	609	601	720	710	27.5	200	13.8	
2	2.229	20	19.01	314	284	284.70	210.00	906	1003	668	740	27.5	200	13.8	
3	1.565	16	15.93	201	199	89.20	134.00	444	448	666	673	37.5	200	18.8	
4	1.009	12	12.79	113	128	58.50	90.20	517	456	798	703	25.0	200	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

BEND TEST:

25mm	Sample bend through 180 degrees Satisfactorily without any crack	Note:- Only Eight Samples Received and Tested
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: Please always confirm the results of above report on web www.uet-civil.edu.pk

Muteen Malik

Test Performed By:

Dr. /Engr.

S. Asad Ali Gillani

Project Engineer, MA Engg. Services, Lahore(Project: Engro Enfrashare B25 Towers)

Client Reference: MA/UETLHR/005

Dated: 12-10-2020

SOM Lab Ref: CED/SOM/3105(Page-3/3)

Dated: 14-10-2020

Test: Tension and 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 ²	mm ²	kN	kN	MPa	MPa	MPa	MPa	mm	mm	%	
1	3.926	25	25.23	491	500	334.00	378.70	680	668	771	758	27.5	200	13.8	
2	2.258	20	19.14	314	288	183.00	206.50	583	637	657	718	22.5	200	11.3	
3	1.558	16	15.90	201	198	89.00	132.50	443	449	659	668	32.5	200	16.3	
4	1.016	12	12.84	113	129	59.70	92.70	528	462	820	716	30.0	200	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

BEND TEST:

25mm	Sample bend through 180 degrees Satisfactorily without any crack	Note:- Only Eight Samples Received and Tested
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: Please always confirm the results of above report on web www.uet-civil.edu.pk

Muteen Malik

Test Performed By: Dr. /Engr.

S. Asad Ali
Gillani

Project Engineer, MA Engg. Services, Lahore(Project: Engro Enfrashare B25 Towers)

Client Reference: MA/UETLHR/003

SOM Lab

Ref: 3105 (Page-1/1)

Dated: 12-10-2020

Dated: 14-10-2020

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	26.83	34.61	74900	76550	96620	98740	1.50	8.0	18.8	
2	2.633	8	0.993	0.79	0.774	26.55	34.22	74140	75670	95530	97510	1.60	8.0	20.0	
3	1.447	6	0.736	0.44	0.425	14.63	20.80	73320	75910	104230	107910	1.20	8.0	15.0	
4	1.438	6	0.734	0.44	0.423	14.44	20.69	72400	75310	103720	107890	1.30	8.0	16.3	
5	0.670	4	0.501	0.20	0.197	6.65	8.87	73290	74410	97800	99290	1.50	8.0	18.8	
6	0.670	4	0.501	0.20	0.197	6.65	8.84	73290	74410	97460	98940	1.30	8.0	16.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

BEND TEST:

# 8	Sample bend through 180 degrees Satisfactorily without any crack	Note:- 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

Resident Engineer,
Walled City Project Package-IV, Mascon Associates (Pvt) Ltd.

Test Performed By: Dr. /Engr.

S. Asad Ali
Gillani

Client Reference: MAS/WCLA/20/007

Dated: 13-10-2020

Test: Tension Test & Bend Test

Gauge Length: 8 inch

Test Specification:

Sample Type:

SOM Lab

Ref: 3106(Page-1/1)

Dated: 14-10-2020

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 ²	in ²	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	0.675	4	0.502	0.20	0.198	6.19	9.12	68230	68920	100610	101620	1.20	8.0	15.0	
2	0.676	4	0.503	0.20	0.199	6.22	9.17	68570	68920	101170	101680	1.30	8.0	16.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

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

Abdullah Muhammad Khadim
Resident Engineer, DAR Engineering

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

Client Reference: DB-78/DAR/RE/ME/2020/0237

SOM Lab

Ref: 31081(Page-1/1)

Dated: 14-10-2020

Dated: 14-10-2020

Test: Tension Test & Bend Test

Test Specification:

ASTM-A-615

Gauge Length: 8 inch

Sample Type:

Deformed Bar(FF 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	1.016	5	0.617	0.31	0.299	10.01	12.76	71220	73840	90800	94140	1.40	8.0	17.5	
2	1.021	5	0.618	0.31	0.300	10.01	12.79	71220	73590	91020	94050	1.50	8.0	18.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

BEND TEST:

# 5	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

Abdullah Muhammad Khadim
Resident Engineer, DAR Engineering

Test Performed By: Dr. /Engr.

S. Asad Ali
Gillani

Client Reference: DB-78/DAR/RE/ME/2020/0237

Dated: 14-10-2020

Test: Tension Test & Bend Test

Gauge Length: 8 inch

Test Specification:

Sample Type:

SOM Lab

Ref: 3109(Page-1/1)

Dated: 14-10-2020

ASTM-A-615

Deformed Bar(Kamran 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	1.489	6	0.747	0.44	0.438	12.74	18.88	63870	64160	94630	95060	1.40	8.0	17.5	S-122
2	1.478	6	0.743	0.44	0.434	12.79	19.44	64130	65010	97440	98790	1.30	8.0	16.3	S-122
3	0.653	4	0.494	0.20	0.192	5.83	8.26	64300	66980	91050	94850	1.50	8.0	18.8	O-125
4	0.660	4	0.497	0.20	0.194	5.96	8.36	65760	67800	92180	95030	1.30	8.0	16.3	O-125
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

BEND TEST:

# 6	Sample bend through 180 degrees Satisfactorily without any crack	Note:- 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

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

Maj Adnan Khalid ©

Dy Dir MTL.

Testing of Anchor Bolt, - (Y-Type) - External (U/G) Elec. with Street Light System Sector-D

Pkg-E2 & E4, Prism -9, DHA Phase-IX - (M/S NLC)

Client Reference: 408/241/E/1006/51

Dated: 13-10-2020

SOM Lab Ref: CED/SOM/3103(Page-1/1)

Dated: 14-10-2020

Test: Tension Test

Test Specification: ASTM-F -1554

Sample Type: Y Bolt

Gauge Length: 50 mm

S.No.	Dia.		Area	Yield Load	Ultimate Load	Yield Stress	Ultimate Stress	Elongation	Gauge Length	%age Elongation	Reduction of Area (%)
	Original Diameter	Tested Diameter									
	mm	mm	mm ²	kN	kN	MPa	MPa	mm	mm	%	
1	12	12.0	113	41.7	59.7	368	527	10.0	50	20.0	45.0
2	12	12.0	113	44.2	63.9	390	561	12.5	50	25.0	53.3
3	12	12.0	113	43.2	61.9	381	547	10.0	50	20.0	46.2

Note:-

Only Three 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

Manager Engineering

M/s Ali Zaman (Pvt) Ltd.

Lahore

Client Reference No.: azi-438-2020

Dated: 14-10-2020

SOM Lab Ref: CED/SOM/3104 Page 1/1)

Dated: 14-10-2020

Test Type: Hardness Test

Sample Type: M. S. Sheet (Thickness 3mm)

Hardness Test Details:

Machine used: Avery Rockwell Hardness Testing Machine

(Minor Load: 10 Kgf Major Load: 90.0 kgf Scale: B)

Hardness Test Results

Sample No.	Sample Type	Hardness
1	M.S. Sheet (MA)	HR – 70.16 – B
2	M.S. Sheet (W)	HR – 71.83 – B

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

Test Performed By: Dr. Syed Asad Ali Gillani

Zoom Tech Services
Specialist in Fiberglass Products
Site No M-12, 1st Floor Anab Luxury Apartments,
1 Jail Road Lahore

Client Reference: ZTS/01

Dated: 12-10-2020

SOM Laboratory Reference: CED/SOM/3107(Page-1/2)

Dated: 14-10-2020

Test: Load Test (Flexural Test)

Sample Type: Fiber Pipe (Elec. Pole)

Total Length = 180mm, Wall Thickness = 8 mm

Load Test Results

Sample No.	Diameter (mm)		Length of the Tested Sample (mm)	Breaking Load (kN)
	Outer	Inner		
1	110.0	90.0	1800.0	13.35.00

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

Test Performed By: Dr. Syed Asad Ali Gillani

Zoom Tech Services
Specialist in Fiberglass Products
Site No M-12, 1st Floor Anab Luxury Apartments,
1 Jail Road Lahore

Client Reference: ZTS/01

Dated: 12-10-2020

SOM Laboratory Reference: CED/SOM/3107(Page-2/2)

Dated: 14-10-2020

Test: Tensile Test & Compressive Test

Sample Type: Fiber Pipe (Elec. Pole)

Tensile Test Result

Sample Type	Size of Sample (mm)	Ultimate Load (kN)	Ultimate Stress (MPa)
Fiber Pipe	18.0 x 6.0	13.55	125.46

Compression Strength Test Result

Sample Type	Size of Sample (mm)	Compression Load (kN)	Compressive Stress (MPa)
GRP Pipe	14.0 x 10.0	10.65	76.071

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