

Muhammad Tahir Nazeer Test Performed By: Dr. /Engr. Asad Ali Gillani
 Dy Manager Civil, Nishat Denim. (Const of Worker Hostel at Denim Plant Unit-67 Bhikki-Sheikhupura)

Client Reference: NML/Denim/26

Dated: 05-09-2023

Test: Tension Test

Guage Length: 200 m

SOM Lab Ref:

Dated:

Test Specification:

Sample Type:

ASTM-A-615

MS Def Bar (Aziz Steel)

2823 (Page-1/1)

07-09-2023

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	m	%	
1	0.890	12	12.00	113	113	58.00	86.00	513	514	761	762	27.5	200	13.8	
2	0.889	12	12.01	113	113	57.20	84.00	506	505	743	742	30.0	200	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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BEND TEST:

12mm	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

Rana Kashif Raza

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

Dy Dir (Maint) NHA, Wazirabad.(Const of U-Turn/Closing Of Existing U-Turn On GT Rd N-5)

Client Reference: Gen/DD(Maint)/WZD/NHA/2023/977

SOM Lab Ref:

2832 (Page-1/1)

Dated: 05-09-2023

Dated:

07-09-2023

Test: Tension Test

Test Specification:

ASTM-A-615

Guage Length: 200 m

Sample Type:

MS Def 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 ²	mm ²	kN	kN	MPa	MPa	MPa	MPa	mm	m	%	
1	0.932	12	12.31	113	119	70.20	92.50	621	590	819	778	30.0	200	15.0	
2	0.956	12	12.45	113	122	56.50	78.50	500	464	695	645	32.5	200	16.3	
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-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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BEND TEST:

12mm	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

Allied Bank
 Manager ABL-UMLP-199&200.(Const Of ABL Upper Mall Lahore)

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

Client Reference: ABL-UML-AMC-QAQC-25

Dated : 06-09-2023

SOM Lab Ref: CED/SOM/2827(Page-1/1)

Dated : 07-09-2023

Test: Tension Test & Bend Test

Test Specification: ASTM-A 615

Sample Type: Deformed Bar (Amreli Steel)

Gauge Length: 200 m

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	m	%	
1	1.600	16	16.12	201	204	114.20	134.20	568	560	667	658	30.0	200	15.0	
2	1.586	16	16.04	201	202	112.70	131.70	561	558	655	652	30.0	200	15.0	
3	1.571	16	15.96	201	200	113.20	133.00	563	566	661	665	30.0	200	15.0	
4	1.003	12.5	12.76	123	128	71.70	85.70	584	562	698	671	30.0	200	15.0	
5	0.997	12.5	12.72	123	127	69.00	84.20	562	544	686	664	32.5	200	16.3	
6	0.998	12.5	12.73	123	127	69.20	84.20	564	545	686	663	32.5	200	16.3	
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BEND TEST:

16mm	Sample bend through 180 degrees Satisfactorily without any crack	Note:- Only Eight Samples Received and Tested
12.5mm	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

Sheikhoo Steel

Test Performed

Dr. /Engr. Asad Ali Gillani

By:

Director Projects, Shekhoo Sugar Mills (Steel Div), Anwar Abad Kot Addu, Muzaffargarh.

Client Reference: Nil

Dated : 06-09-2023

SOM Lab Ref: CED/SOM/2831(Page-1a/1)

Dated : 07-09-2023

Test: Tension Test & Bend Test

Test Specification: ASTM-A 615

Sample Type: Deformed Bar (Shekhoo 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	0.883	12	12.00	113	113	53.50	75.70	473	474	669	670	37.5	200	18.8	186-S
2	0.883	12	11.97	113	113	54.20	74.50	479	482	659	663	35.0	200	17.5	187-S
3	0.884	12	11.97	113	113	54.20	76.50	479	482	676	680	40.0	200	20.0	188-S
4	0.882	12	11.96	113	112	59.20	77.20	523	527	683	687	30.0	200	15.0	189-S
5	0.879	12	11.94	113	112	58.20	77.20	515	520	683	690	30.0	200	15.0	190-S
6	0.877	12	11.93	113	112	52.70	73.00	466	472	645	654	35.0	200	17.5	191-S
7	0.875	12	11.92	113	112	59.70	76.50	528	536	676	686	32.5	200	16.3	192-S
8	0.875	12	11.92	113	112	59.50	77.50	526	534	685	695	30.0	200	15.0	193-S
9	0.879	12	11.94	113	112	58.50	77.50	517	523	685	692	32.5	200	16.3	194-S
10	0.888	12	12.00	113	113	58.50	77.50	517	517	685	685	35.0	200	17.5	195-S

BEND TEST:

--	No Bend test performed	Note:- Only Ten Samples Received and Tested

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

Shekhoo Steel

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

Director Projects, Sheikho Sugar Mills (Steel Div), Anwar Abad Kot Addu, Muzaffargarh.

Client Reference: Nil

Dated : 06-09-2023

SOM Lab Ref: CED/SOM/2831(Page-1b/1)

Dated : 07-09-2023

Test: Tension Test & Bend Test

Test Specification: ASTM-A 615

Sample Type: Deformed Bar (Sheikho Steel)

Gauge Length: 200 m

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	m	%	
1	0.878	12	11.94	113	112	57.70	78.50	510	516	694	701	32.5	200	16.3	196-S
2	0.878	12	11.94	113	112	58.70	76.50	519	525	676	684	35.0	200	17.5	197-S
3	0.876	12	11.92	113	112	59.00	76.50	522	529	676	686	32.5	200	16.3	198-S
4	0.882	12	11.96	113	112	61.50	77.50	544	548	685	690	30.0	200	15.0	199-S
5	0.884	12	11.97	113	113	58.70	78.00	519	522	690	693	35.0	200	17.5	200-S
6	0.887	12	11.99	113	113	60.00	79.00	531	532	699	700	30.0	200	15.0	201-S
7	0.886	12	11.99	113	113	62.70	76.50	554	556	676	678	27.5	200	13.8	202-S
8	0.892	12	12.03	113	114	62.00	76.70	548	546	678	676	35.0	200	17.5	203-S
9	0.886	12	11.99	113	113	62.50	76.70	553	554	678	680	30.0	200	15.0	204-S
10	0.884	12	11.97	113	113	59.70	78.50	528	531	694	698	30.0	200	15.0	205-S

BEND TEST:

--	No Bend test performed	Note:- Only Ten Samples Received and Tested

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

Sheikho Steel

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

Director Projects, Sheikho Sugar Mills (Steel Div),Anwar Abad Kot Addu,Muzaffargarh.

Client Reference: Nil

Dated : 06-09-2023

SOM Lab Ref: CED/SOM/2831(Page-1c/1)

Dated : 07-09-2023

Test: Tension Test & Bend Test

Test Specification: ASTM-A 615

Sample Type: Deformed Bar (Sheikho Steel)

Gauge Length: 200 m

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	m	%	
1	0.878	12	11.94	113	112	59.50	79.20	526	532	700	708	32.5	200	16.3	206-S
2	0.880	12	11.95	113	112	59.20	79.70	523	529	705	711	30.0	200	15.0	207-S
3	0.879	12	11.94	113	112	59.00	79.70	522	528	705	713	30.0	200	15.0	208-S
4	0.876	12	11.92	113	112	59.20	79.70	523	531	705	714	27.5	200	13.8	209-S
5	0.880	12	11.95	113	112	58.20	77.00	515	520	681	687	32.5	200	16.3	210-S
6	0.875	12	11.91	113	111	56.20	74.70	497	505	660	671	30.0	200	15.0	211-S
7	0.870	12	11.88	113	111	56.20	75.50	497	508	668	682	35.0	200	17.5	212-S
8	0.877	12	11.92	113	112	56.50	75.50	500	506	668	677	32.5	200	16.3	213-S
9	0.884	12	11.97	113	113	60.70	76.70	537	540	678	682	30.0	200	15.0	214-S
10	0.875	12	11.92	113	112	56.70	74.70	501	509	660	670	32.5	200	16.3	215-S

BEND TEST:

--	No Bend test performed	Note:- Only Ten Samples Received and Tested

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

Sheikho Steel

Test Performed By:

Dr. /Engr.

Asad Ali Gillani

Director Projects, Sheikho Sugar Mills (Steel Div),Anwar Abad Kot Addu,Muzaffargarh.

Client Reference: Nil

Dated : 06-09-2023

SOM Lab Ref: CED/SOM/2831(Page-1d/1)

Dated : 07-09-2023

Test: Tension Test & Bend Test

Test Specification: ASTM-A 615

Sample Type: Deformed Bar (Sheikho Steel)

Gauge Length: 200 m

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	m	%	
1	0.872	12	11.89	113	111	56.20	75.00	497	507	663	676	32.5	200	16.3	216-S
2	0.875	12	11.92	113	112	56.70	75.00	501	509	663	673	30.0	200	15.0	217-S
3	0.874	12	11.91	113	111	56.70	75.70	501	510	669	681	27.5	200	13.8	218-S
4	0.880	12	11.95	113	112	58.20	78.00	515	519	690	696	27.5	200	13.8	219-S
5	0.872	12	11.89	113	111	58.20	78.00	515	524	690	703	32.5	200	16.3	220-S
6	0.880	12	11.95	113	112	56.50	76.70	500	504	678	684	30.0	200	15.0	221-S
7	0.877	12	11.93	113	112	55.70	76.70	492	499	678	687	32.5	200	16.3	222-S
8	0.876	12	11.92	113	112	57.00	76.00	504	511	672	682	30.0	200	15.0	223-S
9	0.878	12	11.93	113	112	58.70	77.20	519	525	683	691	30.0	200	15.0	224-S
10	0.876	12	11.92	113	112	55.50	75.00	491	498	663	673	30.0	200	15.0	225-S

BEND TEST:

--	No Bend test performed	Note:- Only Ten Samples Received and Tested

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

Engineer Muhammad Irfan

Test Performed By:

Dr. /Engr. Nauman

Asst Dir Infra. DHA Gujranwala.(Boundary Wall, Sector C)

Client Reference: 111/15/AD/RS/Lab/BW/Sec-C/12

Dated: 28-08-2023

Test: Tension Test & Bend Test
inc

Gauge Length: 8 h

Test Specification:

Sample Type:

SOM Lab

Ref: 2822 (Page-1/1)

Dated: 07-09-2023

ASTM-A-615
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	0.647	4	0.492	0.20	0.190	6.27	8.18	69130	72770	90150	94900	1.20	8.0	15.0	
2	0.646	4	0.492	0.20	0.190	6.17	8.12	68010	71590	89590	94310	1.20	8.0	15.0	
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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

Waqas Ali
Variant Gulberg 2, Lahore.

Test Performed By: Dr. /Engr. Nauman Khurram

Client Reference: VA/29/100

SOM Lab

Ref: 2825 (Page-1/1)

Dated: 07-09-2023

Dated: 07-09-2023

Test: Tension Test & Bend Test
inc

Test Specification:

ASTM-A-615

Gauge Length: 8 h

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	1.474	6	0.743	0.44	0.433	14.37	20.74	72050	73210	103980	105660	1.10	8.0	13.8	
2	1.507	6	0.751	0.44	0.443	14.75	21.33	73940	73440	106890	106170	1.50	8.0	18.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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Witnessed By: Naveed Butt (Site Engineer)

BEND TEST:

# 6	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. Muhammad Ashraf

Test Performed By:

Dr. /Engr.

Asad Ali Gillani

Bhatti

CM Barqaab Consult.Services (Pvt) Ltd.(500/220/132kV Nokhar S/Station,ADB Loan No.3677-Pak)

Client Reference: 500KV/SS/N-LHR/BQB/134

Dated: 02-09-2023

Test: Tension Test & Bend Test Test Specification:

Gauge Length: 8 inch

Sample Type:

SOM Lab

Ref: 2826 (Page-1/1)

Dated: 07-09-2023

ASTM-A-615
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	2.578	8	0.982	0.79	0.758	27.24	37.48	76040	79250	104640	109060	1.70	8.0	21.3	
2	2.706	8	1.006	0.79	0.795	27.19	36.44	75900	75420	101740	101100	1.50	8.0	18.8	
3	1.558	6	0.764	0.44	0.458	15.34	21.76	76900	73880	109090	104800	1.70	8.0	21.3	
4	1.567	6	0.766	0.44	0.461	15.14	21.51	75880	72420	107810	102900	1.50	8.0	18.8	
5	0.659	4	0.497	0.20	0.194	6.57	9.19	72510	74750	101390	104530	1.20	8.0	15.0	
6	0.661	4	0.497	0.20	0.194	6.27	8.46	69130	71270	93300	96190	1.10	8.0	13.8	
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Witnessed By: Mohsin Bhatti (NTDC),M Farhan (Barqaab)

BEND TEST:

Sr. (1-2)	Sample bend through 180 degrees Satisfactorily without any crack	Note:- Only Twelve Samples Received and Tested
Sr. (3-4)	Sample bend through 180 degrees Satisfactorily without any crack	
Sr. (5-6)	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

Zafar Iqbal

Test Performed By:

Dr. /Engr.

Yousaf

PM United LifeStyle Pvt. Ltd.(Sky Scrapers By United at Johar Town Lahore)

Client Reference: ULS/2021-22-23/043

Dated: 07-09-2023

Test: Tension Test & Bend Test
inc

Gauge Length: 8 h

Test Specification:

Sample Type:

SOM Lab

Ref: 2829 (Page-1/1)

Dated: 07-09-2023

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	2.676	8	1.000	0.79	0.786	24.94	33.28	69640	69990	92920	93390	1.20	8.0	15.0	
2	2.666	8	0.998	0.79	0.783	25.81	33.69	72060	72700	94050	94900	1.50	8.0	18.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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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 Siddique

Test Performed By:

Dr. /Engr.

Asad Ali Gillani

Head QA/AC AL-A`ZAMIYYA BLOCK PHASE I Lahore.

Client Reference: Alz./ST/006

Dated: 07-09-2023

Test: Tension Test & Bend Test
inc

Gauge Length: 8 h

Test Specification:

Sample Type:

SOM Lab

Ref: 2830 (Page-1/1)

Dated: 07-09-2023

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	2.629	8	0.992	0.79	0.773	27.54	35.19	76900	78590	98240	100400	1.20	8.00	15.00	
2	2.636	8	0.993	0.79	0.775	28.05	35.70	78320	79830	99660	101590	1.30	8.00	16.33	
3	0.655	4	0.494	0.20	0.192	6.54	8.72	72170	75180	96110	100120	1.30	8.00	16.33	
4	0.654	4	0.494	0.20	0.192	6.54	8.69	72170	75180	95770	99760	1.20	8.00	15.00	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

BEND TEST:

# 8	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: .S. Asad Ali Gillani

Malik Riaz
Manager Technical
Bin Tariq Pvt. Ltd Lahore.

Client Reference No.: BTPL/Sales/CED/23-201

Dated: 07-09-2023

SOM Lab Ref: CED/SOM/2828 (Page 1/3)

Dated: 07-09-2023

Test Type: Tension Test

Sample Type: FRP Tube (53mmx76mm), FRP Strips (18mmx50mm)
& FRP Grating (50mmx5mm)

Tension Test Results

Sample No.	Samlpe Type	Sample Size	Area (mm ²)	Ultimate Breaking Load (kN)	Ultimate Breaking Strength (MPa)
1	FRP Tube (53mmx76mm)	12.1 x 5	60.50	21.7	358.67
2	FRP Strips (18mmx50mm)	12.1 x 4	48.40	18.9	390.49
3	FRP Grating (50mmx5mm)	7.7 x 4.8	36.96	17.0	459.95

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

Malik Riaz
Manager Technical
Bin Tariq Pvt. Ltd Lahore.

Client Reference No.: BTPL/Sales/CED/23-201

Dated: 07-09-2023

SOM Lab Ref: CED/SOM/2828 (Page 2/3)

Dated: 07-09-2023

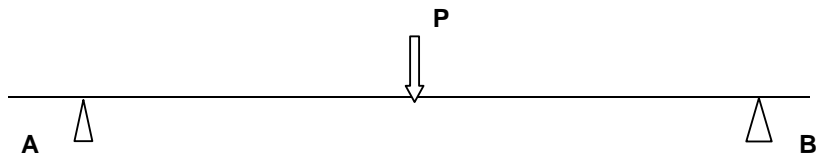
Test Type: Flexural Load Test

Sample Type: FRP Tube (53mmx76mm), FRP Strips (18mmx50mm)
& FRP Grating (50mmx5mm)

Flexural Load Test Results

Sample No.	Sample Type	Ultimate Breaking Load (kN)	Remarks
1	FRP Tube (53mmx76mm)	11.2	Pin Punches in the top fiber & failure occurs at this load
2	FRP Strips (18mmx50mm)	4.0	Pin Punches in the top fiber & failure occurs at this load
3	FRP Grating (50mmx5mm)	11.7	Pin Punches in the top fiber & failure occurs at this load

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



Test Performed by: .S. Asad Ali Gillani

Malik Riaz
Manager Technical
Bin Tariq Pvt. Ltd Lahore.

Client Reference No.: BTPL/Sales/CED/23-201

Dated: 07-09-2023

SOM Lab Ref: CED/SOM/2828 (Page 3/3)

Dated: 07-09-2023

Test Type: Compression Test

Sample Type: FRP Tube (53mmx76mm), FRP Strips (18mmx50mm)
& FRP Grating (50mmx5mm)

Compression Test Results

Sample No.	Sample Type	Ultimate Breaking Load (kN)	Remarks
1	FRP Tube (53mmx76mm) (Buckling)	219.5	Buckling & Delamination
2	FRP Strips (18mmx50mm) (Buckling)	28.7	Buckling & Delamination

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

Test Performed by: .S. Asad Ali Gillani

Malik Riaz
Manager Technical
Bin Tariq Pvt. Ltd Lahore.

Client Reference No.: BTPL/Sales/CED/23-201

Dated: 07-09-2023

SOM Lab Ref: CED/SOM/2828 (Page 3a/3)

Dated: 07-09-2023

Test Type: Compression Test

Sample Type: FRP Tube (53mmx76mm), FRP Strips (18mmx50mm)
& FRP Grating (50mmx5mm)

Compression Test Results

Sample No.	Type Of Pipe	Dimensions	Ultimate Load (kN)	Ultimate Breaking Strength (MPa)
1	FRP Grating Yellow	18 X 14.5	60	239.88
2	FRP Grating Yellow	18 X 14.5	53	203.06
3	FRP Grating Yellow	18 X 14.5	50	191.57
1	FRP Tube White	15.4 x 16.5	52	204.64
2	FRP Tube White	15.4 x 16.5	53	208.57
3	FRP Tube White	15.4 x 16.5	51	200.70

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