Wajid Ali Shah
GM - Works, FF Steel Lahore

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

Client Reference: **Nil**
Dated: **24-09-019**

SOM Lab Ref: **1495(Page-1/1)**
Dated: **01-10-2019**

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

Gauge Length: **8 inch**
Sample Type: **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	1.516	6	0.754	0.44	0.446	15.55	20.64	77920	76870	103470	102080	1.10	8.0	13.8	
2	1.517	6	0.754	0.44	0.446	15.51	20.64	77770	76720	103470	102080	1.10	8.0	13.8	
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BEND TEST:

--	No Bend test performed

Note:-

Only Two Samples Received and Tested

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

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

Innovative® Construction Company, Lahore

Client Reference: **ICL/ISM/GTRI/1019/01** **SOM Lab Ref:** **1496(Page-1/1)**

Dated: **01-10-2019** **Dated:** **01-10-2019**

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

Gauge Length: **8 inch** **Sample Type:** **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	1.456	6	0.738	0.44	0.428	14.34	20.18	71890	73910	101170	104010	1.30	8.0	16.3	
2	1.467	6	0.741	0.44	0.431	14.98	20.85	75110	76680	104490	106670	1.20	8.0	15.0	
3	0.652	4	0.494	0.20	0.192	6.13	8.36	67560	70370	92180	96020	1.20	8.0	15.0	
4	0.652	4	0.494	0.20	0.192	6.01	8.33	66320	69090	91840	95670	1.30	8.0	16.3	
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BEND TEST:

# 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

Executive Engineer,
Highway Division, Sargodha

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

Client Reference: **4654/C**
Dated: **13-09-2019**

SOM Lab Ref: **1499 (Page-1/1)**
Dated: **01-09-2019**

Test: **Tension Test**

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

Gauge Length: **8 inch**

Sample Type: **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	1.466	6	0.741	0.44	0.431	10.84	16.18	54320	55450	81090	82780	1.40	8.0	17.5	
2	1.467	6	0.741	0.44	0.431	10.77	16.08	54010	55140	80580	82260	1.30	8.0	16.3	
3	0.597	4	0.472	0.20	0.175	4.25	6.01	46880	53570	66320	75800	1.40	8.0	17.5	
4	0.605	4	0.476	0.20	0.178	4.40	6.07	48560	54570	66890	75150	1.30	8.0	16.3	
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BEND TEST:

--	No Bend test performed

Note:-

Only Four Samples Received and Tested

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

Faisal Mubarik Shabbir Khan(Retd.)

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

TBt, TI (M), Lieutenant Colonel, Additional Director Development, DHA Phaes-XI (Rehbar) Lahore

Client Reference: **700/3/Girls School/Ph-XI/Projs/2868**

Dated: **30-09-2019**

SOM Lab Ref: **1501(Page-1/1)**

Dated: **01-10-2019**

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^2	in^2	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	2.784	8	1.021	0.79	0.818	22.91	35.02	63950	61760	97750	94410	1.40	8.0	17.5	
2	2.788	8	1.021	0.79	0.819	22.83	34.78	63750	61490	97100	93660	1.30	8.0	16.3	
3	0.670	4	0.501	0.20	0.197	6.01	9.30	66320	67330	102520	104080	1.20	8.0	15.0	
4	0.671	4	0.501	0.20	0.197	5.98	9.30	65990	66990	102520	104080	1.10	8.0	13.8	
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BEND TEST:

# 8	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

Maj Adnan khalid® **Test Performed By:** **Dr. /Engr.** **S Asad Ali Gillani**

Dy Dir MTL, Const of Mosque , L- Block, DHA Ph-V - (M/S Ghazi Builders)

Client Reference: **408/241/E/Lab/725/071** **SOM Lab Ref:** **1502(Page-1/1)**

Dated: **01-10-2019** **Dated:** **01-10-2019**

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

Gauge Length: **8 inch** **Sample Type:** **Deformed Bar (Mughal Supreme)**

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	25.43	35.78	71000	71730	99890	100910	1.20	8.0	15.0	
2	2.668	8	0.999	0.79	0.784	24.64	34.68	68790	69310	96820	97560	1.50	8.0	18.8	
3	1.501	6	0.749	0.44	0.441	15.06	18.37	75470	75300	92070	91870	1.50	8.0	18.8	
4	1.479	6	0.744	0.44	0.435	14.78	18.83	74090	74940	94370	95460	1.40	8.0	17.5	
5	0.649	4	0.493	0.20	0.191	7.72	9.07	85100	89100	100050	104760	1.00	8.0	12.5	
6	0.647	4	0.492	0.20	0.190	7.54	9.17	83180	87560	101170	106490	1.10	8.0	13.8	
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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

Sub Divisional Officer
Highway Sub Division . 2, Faisalabad

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

Client Reference: **91/F-11**
Dated: **14-09-2019**

SOM Lab Ref: **1504 (Page-1/1)**
Dated: **01-10-2019**

Test: **Tension Test & Bend Test** **Test Specification:** **ASTM-A-615**
Gauge Length: **8 inch** **Sample Type:** **Plan Bar (Round 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	2.639	8	0.994	0.79	0.776	18.35	27.49	51230	52150	76750	78140	1.90	8.0	23.8	
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BEND TEST:

# 8	Sample bend through 180 degrees Satisfactorily without any crack

Note:-

Only Two Samples Received and Tested

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

Test Performed By: Dr. Asad Ali Gillani

M. Ubaid Ullah Khalid
Manager Marketing,
Fiber Craft Industries
Lahore

Client Reference: FCI/19/CR/17011 **Dated: 30-09-2019**
SOM Laboratory Reference: CED/SOM/1497(Page-1/1) **Dated: 01-10-2019**
Test: Stiffness Test, Tensile Test, Compression Strength
Sample Type: GRP Pipe (1000mm Diameter)

Stiffness Test (Parallel Plate Loading Test as per ASTM-D-2412)

(GRP Pipe 1000mm)

Total Length = 305 mm, External Diameter = 1042 mm, Wall Thickness = 14.0 mm

Percentage Reduction in Diameter of Sample	Compression Load, P (kN)	Stiffness (Corrected)			Remarks
		Pipe Stiffness (kN/m^2)	Stiffness Factor (N-m)	Specific Tangential initial Stiffness (N/m^2)	
5%	3.961	269	5442	5220	No Crack Observed

Tensile Test

Sample Type	Size of Sample (mm)	Ultimate Load (kN)	Ultimate Stress (MPa)
GRP Pipe (1000mm)	16.0 x 14.0	31.5	140.625

Compression Strength Test

Sample Type	Size of Sample (mm)	Compression Load (kN)	Compression Stress (MPa)
GRP Pipe (1000mm)	16.0 x 15.0	38.5	160.416

Test Performed by: Dr.S. Asad Ali Gillani

Sub Divisional Officer
Public Health Engg: Division
Pattoki

Client Reference No.: 409/P **Dated: 28-09-2019**

SOM Lab Ref: CED/SOM/1500 (P-1/1) **Dated: 01-10-2019**

Test Type: Flexural Strength Test & Crushing Strength Test

Sample Type: AC Pipe (6")

Standard: ASTM-C-875 - 98

Flexural Load Results

Sample No.	Diameter (mm)		Length of the Tested Sample (mm)	Flexural Load (kN)
	Outer	Inner		
1	176.0	150.0	1530	20.25

Crushing Load Results

Sample No.	Diameter (mm)		Length of the Tested Sample (mm)	Crushing Load (kN)
	Outer	Inner		
1	176.0	150.0	310.0	16.75

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

Test Performed by: Dr. S. Asad Ali Gillani

Resident Engineer (Infrastructure)
DKC
NESPAK (Pvt) Ltd. Lahore

Client Reference No.: SA-394/DKC/GR/ TEST/SM/1503 **Dated: 01-10-2019**

SOM Lab Ref: CED/SOM/1503(Page-1/1) **Dated: 01-10-2019**

Test Type: Hardness Test

Sample Type: Nut-Bolt (Diameter: 12mm)

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	Nut	HR – 78.83 – B
2	Bolt	HR – 92.0 – B

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

Test Performed by: Dr. Nauman Khurram

Arfan ul Haq
Resident Engineer, CPEC – Package-3
FWO Camp Bani Afghan, Mianwali

Client Reference No.: CPEC/NESPAK/CS/RE/PKG3/19/1090 **Dated: 30-07-2019**

SOM Lab Ref: CED/SOM/1223(Page-3/3) **Dated: 01-08-2019**

Test Type: Tensile Test

Sample Type: Anchor Bolt (12mm Diameter)

Tensile Test Results

Sample No.	Diameter of Bolt (mm)	Ultimate Load (kN)	Ultimate Tensile Stress (MPa)	Elongation (%)
1	12.0	72.7	642.82	15.0

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

Test Performed by: Dr. S. Asad Ali Gillani

Azmoon Construction Company
Afghanistan

Project: Construction of 42 m RCC Girder Bridge meluding 0.805Km approach Road on Kart-e-Atefaq Chap Darya-e-Shar Pul –e- Kharmry Distict of Baghlan Province (RRD/MOF/NRAP/HRHE/BGN/083.C2/001)

Client Reference No.: Nil **Dated: 28-09-2019**

SOM Lab Ref: CED/SOM/1505(Page-1/1) **Dated: 01-10-2019**

Test: Tensile Test, Elongation, Strength , Hardness Test & Comp. Set Test

Sample Type: Neoprene Bearing Rubber Pad

Description	Unit	Before Aging	After aging @100°C.	Standard ASTM
nsile Strength	Kgs/cm	324.45	285.83	D-412
ngation at Break	%	470	416	D-412
rdness (Shore A)	Point	61.166	64.5	D-2240

- COMPRESSION SET TEST (AS PER ASTM-D-395)

S. No.	Thickness of Sample (mm)	Final Thickness (mm)	Compression set (%)
1	3.0	2.98	0.66