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

Project Manager, CCECC MATRACON - HABIB JOINT VENTURE. Lahore

Client Reference: AIIAP/CCECC-MATRACON-HABIB JV/2021/278 **Dated:** 24-03-2021

SOM Lab Ref: CED/SOM/4101 (Page-2/2) **Dated:** 24-03-2021

Test: Tension Test **Test Specification:** BS-4449

Sample Type: Deformed Bar(PAK Steel Mill) **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	0.900	12	12.10	113	115	64.70	76.50	572	563	676	666	27.5	200	13.8	7320
2	0.898	12	12.07	113	114	64.50	78.00	570	565	690	683	30.0	200	15.0	7321
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BEND TEST:

12mm	Sample bend through 180 degrees Satisfactorily without any crack
12mm	Sample bend through 180 degrees Satisfactorily without any crack

Note:-

Only Four Samples Received and Tested

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

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

Project Manager, CCECC MATRACON - HABIB JOINT VENTURE. Lahore

Client Reference: AIIAP/CCECC-MATRACON-HABIB JV/2021/276 **Dated:** 22-03-2021

SOM Lab Ref: CED/SOM/4101 (Page-1/2) **Dated:** 24-03-2021

Test: Tension Test **Test Specification:** BS-4449

Sample Type: Deformed Bar(PAK Steel Mill) **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	1.516	16	15.68	201	193	95.00	124.90	472	493	621	648	32.5	200	16.3	7300
2	1.527	16	15.74	201	195	106.00	130.70	527	545	650	672	27.5	200	13.8	7313
3	1.531	16	15.76	201	195	97.00	130.20	482	498	648	668	30.0	200	15.0	7314
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BEND TEST:

16mm	Sample bend through 180 degrees Satisfactorily without any crack
16mm	Sample bend through 180 degrees Satisfactorily without any crack
16mm	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

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

Resident Engineer, QA/QC, Department, Bahria Town, (Pvt) Ltd Lahore

Client Reference: QA/QC-Steel-2307 **SOM Lab Ref:** 4100(Page-1/1)

Dated: 19-03-2021 **Dated:** 24-03-2021

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

Gauge Length: 8 inch **Sample Type:** Deformed Bar(Ittefaq & Mughal 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	2.642	8	0.994	0.79	0.776	29.36	38.43	81960	83440	107290	109220	1.10	8.0	13.8	Ittefaq
2	2.672	8	1.000	0.79	0.785	30.58	39.22	85380	85920	109480	110180	1.10	8.0	13.8	Ittefaq
3	1.495	6	0.748	0.44	0.439	17.33	21.41	86860	87060	107300	107540	1.00	8.0	12.5	Mugha
4	1.519	6	0.754	0.44	0.446	17.74	21.68	88910	87710	108680	107220	1.20	8.0	15.0	Mugha
5	0.686	4	0.507	0.20	0.202	6.60	8.84	72730	72010	97460	96490	1.30	8.0	16.3	Mugha
6	0.667	4	0.500	0.20	0.196	5.76	8.58	63510	64810	94650	96580	1.20	8.0	15.0	Mugha
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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
Buildings Sub Division, Bhalwal

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

Client Reference: 130/SB
Dated: 15-03-2021

SOM Lab Ref: 4103(Page-1/1)
Dated: 24-03-2021

Test: Tension 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^2	in^2	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	0.526	4	0.444	0.20	0.155	4.61	7.08	50810	65560	78130	100810	1.20	8.0	15.0	
2	0.521	4	0.441	0.20	0.153	4.61	7.00	50810	66420	77230	100950	1.10	8.0	13.8	
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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

Assistant Project Director
Air University, Multan Campus, Multan

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

Client Reference: MUX/AUMC/ISD/2021/30
Dated: 12-03-2021

SOM Lab Ref: 4104(Page-1/1)
Dated: 24-03-2021

Test: Tension Test & Bend Test
Gauge Length: 8 inch

Test Specification: ASTM-A-615
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	1.448	6	0.736	0.44	0.426	13.51	19.49	67700	69930	97690	100910	1.20	8.0	15.0	
2	1.441	6	0.734	0.44	0.423	13.46	121.41	67450	70160	608520	632980	1.10	8.0	13.8	
3	0.670	4	0.501	0.20	0.197	6.54	8.86	72170	73270	97680	99170	1.10	8.0	13.8	
4	0.665	4	0.498	0.20	0.195	6.12	8.43	67450	69180	92960	95350	1.20	8.0	15.0	
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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

Assistant Director -II **Test Performed By:** **Dr. /Engr.** S. Asad Ali Gillani

Building Research Station, C & W, Department, Govt. of Punjab, Lahore

Client Reference: 124-R/786 **SOM Lab Ref:** 4105(Page-1/1)

Dated: 22-03-2021 **Dated:** 24-03-2021

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

Gauge Length: 8 inch **Sample Type:** Deformed Bar(Itthad 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	2.694	8	1.004	0.79	0.792	22.68	36.39	63320	63160	101600	101340	1.60	8.0	20.0	
2	1.051	5	0.627	0.31	0.309	8.84	13.73	62880	63080	97690	98000	1.50	8.0	18.8	
3	0.668	4	0.500	0.20	0.196	5.73	8.41	63180	64470	92740	94630	1.60	8.0	20.0	
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BEND TEST:

# 8	Sample bend through 180 degrees Satisfactorily without any crack
# 5	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

Muhammad Azeem Ramay
Municipal Committee Dujkot, District Faisalabad

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

Client Reference: nil
Dated: 24-03-2021

SOM Lab Ref: 4106(Page-1/1)
Dated: 24-03-2021

Test: Tension 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^2	in^2	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	1.517	6	0.754	0.44	0.446	10.81	15.90	54160	53430	79710	78640	2.10	8.0	26.3	
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BEND TEST:

--	No Bend test performed

Note:-

Only One Sample Received and Tested

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

Wajid Ali Shah
GM - Works, FF Steel Lahore

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

Client Reference: Nil
Dated: 18-03-2021

SOM Lab
Ref: 4107(Page-1/1)
Dated: 24-03-2021

Test: Tension Test
Gauge Length: 8 inch

Test Specification: ASTM-A-615
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	1.463	6	0.740	0.44	0.430	14.04	19.67	70360	72000	98610	100910	1.20	8.0	15.0	
2	1.473	6	0.743	0.44	0.433	13.71	19.40	68730	69840	97230	98810	1.20	8.0	15.0	
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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

Test Performed by: Dr.S. Asad ali Gillani

Executive Engineer PWD

Public Health Engineering Division,

Muzaffarabad

Client Reference No.: Nil Dated: 22-03-2021

SOM Lab Ref: CED/SOM/4102(Page 1/1) Dated: 24-03-2021

Test Type: Hardness Test

Sample Type: G. I. Pipe (2”, 3”, 4”, 6” Diameter)

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	G. I. Pipe - 2”	HR – 61.50 – B
2	G. I. Pipe - 3”	HR – 76.33 – B
3	G. I. Pipe - 4”	HR – 74.00 – B
4	G. I. Pipe - 6”	HR – 62.33 – B

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