

Muteen Zafar Malik(Project Engr)

Test Performed By:

Dr. /Engr.

S. Asad Ali Gillani

MA Engg. Services(ES-0221,0233,0172,0150,0406,0413,0082,LHF-023,QPIG-02,KBD-107,QBD-104)

Client Reference: MA/UET/LHR/002

Dated: 13-02-2020

SOM Lab Ref: CED/SOM/2238(Page-1/1)

Dated: 14-02-2020

Test: Tension & 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	4.016	25	25.53	491	512	321.00	372.70	654	627	759	728	27.5	200	13.8	
2	2.210	20	18.93	314	282	145.20	182.70	462	516	582	649	27.5	200	13.8	
3	1.515	16	15.68	201	193	112.30	142.50	559	582	709	739	27.5	200	13.8	
4	1.006	12	12.77	113	128	56.70	85.70	501	443	758	669	32.5	200	16.3	
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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

M. Iqbal Rashid
CEO, Technocrate, Lahore

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

Client Reference: Nil

SOM Lab

Ref: 2241(Page-1/1)

Dated: 14-02-2020

Dated: 14\02-2020

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	2.551	8	0.977	0.79	0.750	23.16	32.47	64660	68110	90640	95470	1.30	8.0	16.3	
2	1.458	6	0.738	0.44	0.428	13.28	17.81	66580	68450	89260	91770	1.30	8.0	16.3	
3	1.050	5	0.627	0.31	0.309	11.08	14.24	78830	79090	101310	101640	1.10	8.0	13.8	
4	0.627	4	0.484	0.20	0.184	6.03	7.97	66550	72330	87910	95550	1.10	8.0	13.8	
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BEND TEST:

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

M. Kamran Siddiqui
Chief Engineer (HVDC), NTDC, Lahore

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

Client Reference: 9172-765/CE/HVDC/LHR

SOM Lab

Ref: 2242(Page-1/2)

Dated: 02-02-2020

Dated: 14-02-2020

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	1.066	5	0.631	0.31	0.313	9.48	14.14	67450	66800	100590	99620	1.50	8.0	18.8	
2	1.070	5	0.632	0.31	0.314	9.68	14.22	68900	68020	101170	99880	1.20	8.0	15.0	
3	1.067	5	0.632	0.31	0.314	9.58	14.17	68170	67300	100810	99520	1.50	8.0	18.8	
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Witnessed By: M Bilal Butt, O. E, M. Umair AslamDM(HVDC) NTDC & Dr. Ali Adnan (CET)

BEND TEST:

# 5	Sample bend through 180 degrees Satisfactorily without any crack	Note:- Only Six Samples Received and Tested
# 5	Sample bend through 180 degrees Satisfactorily without any crack	
# 5	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

M. Kamran Siddiqui
Chief Engineer (HVDC), NTDC, Lahore

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

Client Reference: 9172-765/CE/HVDC/LHR

SOM Lab

Ref: 2242(Page-2/2)

Dated: 02-02-2020

Dated: 14-02-2020

Test: Tension Test & Bend Test

Test Specification: ASTM-A-615

ASTM-A-615

Gauge Length: 8 inch

Sample Type: Deformed Bar

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	1.026	5	0.620	0.31	0.302	10.83	14.32	77020	79060	101890	104590	1.30	8.0	16.3	
2	1.051	5	0.627	0.31	0.309	10.45	13.93	74340	74580	99140	99460	1.50	8.0	18.8	
3	1.039	5	0.623	0.31	0.305	10.81	14.29	76880	78140	101680	103340	1.50	8.0	18.8	
4	0.653	4	0.494	0.20	0.192	5.86	8.66	64640	67330	95550	99530	1.50	8.0	18.8	
5	0.657	4	0.496	0.20	0.193	5.86	8.66	64640	66980	95550	99010	1.40	8.0	17.5	
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Witnessed By: M Bilal Butt, O. E, M. Umair AslamDM(HVDC) NTDC & Dr. Ali Adnan (CET)

BEND TEST:

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