

Engr M Naveed Sadiq
Resident Engineer, Orbit Housing, Lahore

Test Performed By: Dr. /Engr. Nauman Khurram

Client Reference: Nil

SOM Lab

Ref: 1236(Page-1/1)

Dated: 05-08-2019

Dated: 05-08-2019

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	2.560	8	0.979	0.79	0.752	27.68	33.97	77270	81170	94820	99610	1.00	8.0	12.5	
2	2.542	8	0.975	0.79	0.747	27.03	32.95	75470	79820	91980	97270	1.10	8.0	13.8	
3	1.488	6	0.746	0.44	0.437	15.11	20.51	75720	76240	102800	103510	0.80	8.0	10.0	
4	1.473	6	0.743	0.44	0.433	14.95	20.20	74960	76170	101270	102910	0.80	8.0	10.0	
5	0.655	4	0.494	0.20	0.192	9.40	10.11	103640	107960	111510	116160	0.60	8.0	7.5	
6	0.653	4	0.494	0.20	0.192	6.98	8.84	77000	80210	97460	101520	0.80	8.0	10.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

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

Maj Adnan khalid®

Test Performed By: Dr. /Engr. Amna Rajput

Dy Dir MTL, Proposed Commercial Plaza, DRGCC Ph-III, DHA Ph-VI, (M/S Construct)

Client Reference: 408/241/E/Lab/669/3335

SOM Lab

Ref: 1238(Page-1/1)

Dated: 02-08-2019

Dated: 05-08-2019

Test: Tension Test & Bend Test

Test Specification:

ASTM-A-615

Deformed Bar (Kamran Steel)

Gauge Length:

8 inch

Sample Type:

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	0.644	4	0.491	0.20	0.189	5.73	8.21	63180	66850	90490	95760	1.20	8.0	15.0	
2	0.658	4	0.496	0.20	0.193	5.96	8.61	65760	68150	94990	98430	1.20	8.0	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

M. Kamran Siddiqui
Chief Engineer (HVDC) NTDC, Lahore (Lot 4)

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

Client Reference: 6510-12/CE/HVDC/LHR

SOM Lab

Ref: 1239(Page-1/2)

Dated: 05-08-2019

Dated: 05-08-2019

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	2.633	8	0.993	0.79	0.774	26.69	35.37	74500	76050	98750	100790	1.40	8.0	17.5	
2	2.623	8	0.991	0.79	0.771	26.93	35.55	75190	77040	99230	101680	1.30	8.0	16.3	
3	2.630	8	0.992	0.79	0.773	27.12	35.65	75700	77360	99520	101710	1.20	8.0	15.0	
4	0.661	4	0.497	0.20	0.194	6.09	8.15	67110	69190	89930	92710	1.10	8.0	13.8	
5	0.661	4	0.497	0.20	0.194	6.19	8.28	68230	70340	91280	94100	1.20	8.0	15.0	
6	0.656	4	0.496	0.20	0.193	6.12	8.15	67450	69890	89930	93190	1.30	8.0	16.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

BEND TEST:

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

M. Kamran Siddiqui
Chief Engineer (HVDC) NTDC, Lahore (Lot 4)

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

Client Reference: 6510-12/CE/HVDC/LHRCED/SOM/

SOM Lab

Ref: 1239(Page-2/2)

Dated: 05-08-2019

Dated: 05-08-2019

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	1.015	5	0.616	0.31	0.298	9.96	13.48	70860	73710	95880	99740	1.20	8.0	15.0	
2	1.029	5	0.620	0.31	0.302	9.35	13.78	66500	68270	98050	100650	1.30	8.0	16.3	
3	1.010	5	0.615	0.31	0.297	8.97	13.07	63820	66620	92970	97040	1.20	8.0	15.0	
4	1.018	5	0.617	0.31	0.299	9.30	13.32	66140	68580	94790	98270	1.40	8.0	17.5	
5	1.005	5	0.613	0.31	0.295	8.89	13.02	63240	66460	92610	97320	1.40	8.0	17.5	
6	1.014	5	0.616	0.31	0.298	10.06	13.63	71580	74460	96960	100870	1.30	8.0	16.3	
7	1.004	5	0.613	0.31	0.295	9.60	13.71	68320	71790	97540	102500	1.10	8.0	13.8	
8	1.000	5	0.612	0.31	0.294	9.33	13.37	66360	69970	95150	100330	1.10	8.0	13.8	
9	1.016	5	0.617	0.31	0.299	10.16	13.86	72310	74970	98630	102260	1.30	8.0	16.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

BEND TEST:

# 5 (S. 1,2)	Sample bend through 180 degrees Satisfactorily without any crack	Note:- Only Eighteen Samples Received and Tested
# 5 (S. 3,4)	Sample bend through 180 degrees Satisfactorily without any crack	
# 5 (S.5,6)	Sample bend through 180 degrees Satisfactorily without any crack	
# 5(S. 7,8)	Sample bend through 180 degrees Satisfactorily without any crack	
# 5 (S. 9)	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

Executive Engineer,
Highways Division, Okara

Test Performed By: Dr. /Engr.

S Asad Ali
Gillani

Client Reference: 367/M

SOM Lab

Ref: 1240(Page-1/1)

Dated: 28-07-2019

Dated: 05-08-2019

Test: Tension 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	1.541	6	0.759	0.44	0.453	11.01	16.79	55190	53600	84160	81740	1.80	8.0	22.5	
2	1.533	6	0.758	0.44	0.451	10.91	16.74	54670	53340	83900	81850	1.80	8.0	22.5	
3	1.536	6	0.758	0.44	0.451	10.81	16.74	54160	52840	83900	81850	1.70	8.0	21.3	
4	1.065	5	0.631	0.31	0.313	10.59	13.25	75350	74630	94280	93380	1.30	8.0	16.3	
5	1.070	5	0.632	0.31	0.314	10.55	13.68	75060	74110	97330	96090	1.40	8.0	17.5	
6	1.065	5	0.631	0.31	0.313	10.55	13.22	75060	74340	94060	93160	1.40	8.0	17.5	
7	0.672	4	0.501	0.20	0.197	5.07	7.77	55870	56720	85660	86960	1.20	8.0	15.0	
8	0.668	4	0.500	0.20	0.196	5.17	7.85	56990	58160	86560	88320	1.30	8.0	16.3	
9	0.670	4	0.501	0.20	0.197	5.17	7.77	56990	57860	85660	86960	1.20	8.0	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

BEND TEST:

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

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

Shoaib Razzaq
Project Coordinator. Lahore

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

Client Reference: SEL/LHR/C-441/10278

SOM Lab
Ref: 1241 (Page-2/2)

Dated: 03-08-2019

Dated: 05-08-2019

Test: Tension 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	1.465	6	0.741	0.44	0.431	13.86	20.95	69490	70940	105000	107190	1.10	8.0	13.8	
2	1.457	6	0.738	0.44	0.428	13.37	20.54	67040	68920	102960	105840	1.10	8.0	13.8	
3	0.652	4	0.494	0.20	0.192	6.27	9.63	69130	72010	106230	110650	1.20	8.0	15.0	
4	0.653	4	0.494	0.20	0.192	6.22	9.58	68570	71430	105670	110070	1.20	8.0	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

BEND TEST:

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

Shoaib Razzaq
Project Coordinator. Lahore

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

Client Reference: SEL/LHR/C-441/10278

SOM Lab
Ref: 1241 (Page-1/2)

Dated: 03-08-2019

Dated: 05-08-2019

Test: Tension 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	1.460	6	0.739	0.44	0.429	13.63	21.02	68320	70070	105360	108060	1.10	8.0	13.8	
2	1.452	6	0.737	0.44	0.427	13.56	20.92	67960	70030	104850	108040	1.10	8.0	13.8	
3	0.656	4	0.496	0.20	0.193	6.57	8.51	72510	75140	93860	97270	1.20	8.0	15.0	
4	0.680	4	0.505	0.20	0.200	6.62	8.61	72960	72960	94990	94990	1.20	8.0	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

BEND TEST:

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

Wang Bo

Test Performed By:

Dr. /Engr.

Nauman Khurram

Project Manager, State Grid, China Electric Power Equipment and Technology Co. Ltd

SOM Lab

Client Reference: CET/HVDC/L8Balloki/SJ Steel/uet-19-724

Ref: 1242(Page-1/2)

Dated: 31-07-2019

Dated: 05-08-2019

Test: Tension Test & Bend Test

Test Specification:

ASTM-A-615

Gauge Length: 8 inch

Sample Type:

Deformed Bar(Lot -8 Balloki)

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	3.289	9	1.110	1.00	0.967	31.96	44.82	70480	72890	98850	102230	1.00	8.0	12.5	
2	3.308	9	1.112	1.00	0.972	33.10	44.97	73000	75100	99190	102050	1.40	8.0	17.5	
3	3.347	9	1.119	1.00	0.984	34.02	43.99	75020	76240	97010	98590	1.30	8.0	16.3	
4	2.607	8	0.988	0.79	0.766	26.25	33.49	73280	75580	93490	96410	1.40	8.0	17.5	
5	2.614	8	0.989	0.79	0.768	26.07	34.10	72770	74850	95190	97920	1.20	8.0	15.0	
6	2.615	8	0.989	0.79	0.768	25.05	33.64	69920	71930	93910	96600	1.20	8.0	15.0	
7	0.652	4	0.494	0.20	0.192	6.14	8.10	67670	70490	89370	93090	1.20	8.0	15.0	
8	0.680	4	0.505	0.20	0.200	6.44	8.33	71040	71040	91840	91840	1.20	8.0	15.0	
9	0.650	4	0.493	0.20	0.191	6.12	8.51	67450	70630	93860	98290	1.10	8.0	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Witnessed By:

M. Abbas, (OE) ,

BEND TEST:

# 9(S.1,2,3)	Sample bend through 180 degrees Satisfactorily without any crack	Note:- Only Eighteen Samples Received and Tested
# 8(S.4,5,6)	Sample bend through 180 degrees Satisfactorily without any crack	
# 4(S.7,8,9)	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

Wang Bo

Test Performed By:

Dr. /Engr.

Nauman Khurram

Project Manager, State Grid, China Electric Power Equipment and Technology Co. Ltd

SOM Lab

Client Reference: CET/HVDC/L8Balloki/SJ Steel/uet-19-724

Ref: 1242(Page-2/2)

Dated: 31-07-2019

Dated: 05-08-2019

Test: Tension Test & Bend Test

Test Specification:

ASTM-A-615

Deformed Bar(Lot -8

Gauge Length: 8 inch

Sample Type:

Balloki)

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	1.021	5	0.618	0.31	0.300	9.68	13.25	68900	71190	94280	97420	1.10	8.0	13.8	
2	1.049	5	0.626	0.31	0.308	8.87	11.85	63100	63510	84270	84820	1.20	8.0	15.0	
3	1.038	5	0.623	0.31	0.305	10.37	13.22	73760	74970	94060	95600	1.20	8.0	15.0	
4	1.015	5	0.616	0.31	0.298	9.45	13.15	67230	69940	93550	97320	1.00	8.0	12.5	
5	1.008	5	0.614	0.31	0.296	8.89	11.72	63240	66230	83400	87350	1.00	8.0	12.5	
6	1.050	5	0.627	0.31	0.309	8.84	11.62	62880	63080	82680	82940	1.30	8.0	16.3	
7	1.031	5	0.621	0.31	0.303	10.96	13.63	77960	79760	96960	99200	1.00	8.0	12.5	
8	1.047	5	0.626	0.31	0.308	9.63	13.25	68540	68980	94280	94890	1.20	8.0	15.0	
9	1.049	5	0.626	0.31	0.308	9.40	13.05	66870	67300	92830	93430	1.10	8.0	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Witnessed By: M. Abbas, (OE) ,

BEND TEST:

# 5(S.1,2,3)	Sample bend through 180 degrees Satisfactorily without any crack	Note:- Only Eighteen Samples Received and Tested
# 5(S.4,5,6)	Sample bend through 180 degrees Satisfactorily without any crack	
# 5(S.7,8,9)	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

Anis Ahmad
Senior Engineer, Mansoor Mazhar & Associates, Lahore

Test Performed By: Dr. /Engr.

S. Asad Ali
Gillani

Client Reference: MMA/PVV/WT/06

SOM Lab

Ref: 1243(P-1/1)

Dated: 02-08-2019

Dated: 05-08-2019

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	1.504	6	0.750	0.44	0.442	14.37	18.25	72050	71720	91460	91050	0.90	8.0	11.3	
2	1.506	6	0.751	0.44	0.443	17.53	21.07	87880	87290	105610	104900	0.70	8.0	8.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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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