

Chief Engineer (HVDC) NTDC  
National Transmission & Despatch Company LTD. Lahore

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

**Client Reference:** 8727-30/CD/HVDC/LHR

**SOM Lab**

**Ref:** 2022(Page-1/1)

**Dated:** 09-01-2020

**Dated:** 09-01-2020

**Test:** Tension Test & Bend Test

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

**Gauge Length:** 8 inch

**Sample Type:** Deformed Bar(Kamran 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 <sup>2</sup>	in <sup>2</sup>	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	2.612	8	0.989	0.79	0.768	25.40	33.76	70920	72950	94250	96950	1.30	8.0	16.3	
2	2.598	8	0.986	0.79	0.763	25.71	33.91	71770	74310	94680	98030	1.10	8.0	13.8	
3	1.983	7	0.862	0.60	0.583	19.13	26.98	70330	72380	99180	102080	1.40	8.0	17.5	
4	1.966	7	0.858	0.60	0.578	19.52	27.78	71760	74490	102110	105990	1.50	8.0	18.8	
5	1.495	6	0.748	0.44	0.439	12.92	19.37	64740	64890	97080	97300	1.50	8.0	18.8	
6	1.491	6	0.747	0.44	0.438	12.64	19.24	63360	63650	96420	96860	1.40	8.0	17.5	
7	1.061	5	0.630	0.31	0.312	9.58	14.44	68170	67740	102760	102110	1.30	8.0	16.3	
8	1.052	5	0.627	0.31	0.309	9.45	14.29	67230	67450	101680	102010	1.50	8.0	18.8	
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**Witnessed By:** Engr. Muaz Yasin, (NTDC), M. Aamir, CET, M. Bilal Butt, O.E,

**BEND TEST:**

# 8	Sample bend through 180 degrees Satisfactorily without any crack	<b>Note:-</b>  Only Twelve Samples Received and Tested
# 7	Sample bend through 180 degrees Satisfactorily without any crack	
# 6	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](http://www.uet-civil.edu.pk)

Ata Ul Qudus Khan  
Chanab Nagar, Chiniot

Test Performed By: Dr. /Engr. Bilal Anwar

Client Reference: nil

SOM Lab

Ref: 2023(Page-1/1)

Dated: 09-01-2020

Dated: 09-01-2020

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 <sup>2</sup>	in <sup>2</sup>	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	1.031	5	0.621	0.31	0.303	11.01	14.24	78330	80130	101310	103650	1.20	8.0	15.0	
2	1.027	5	0.620	0.31	0.302	10.72	13.88	76300	78320	98780	101390	1.10	8.0	13.8	
3	0.664	4	0.498	0.20	0.195	6.88	8.69	75880	77820	95770	98230	1.20	8.0	15.0	
4	0.692	4	0.508	0.20	0.203	7.19	9.19	79250	78080	101390	99900	1.30	8.0	16.3	
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**BEND TEST:**

# 5	Sample bend through 180 degrees Satisfactorily without any crack	<b>Note:-</b>  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](http://www.uet-civil.edu.pk)