

Engr. Farzeen Badshah

**Test Performed By:**

Dr. /Engr.

S. Asad Ali Gillani

Project Manager, Gorkin-Matiltan Hydropower Project, Barqaab Consulting Services (Pvt) Ltd.

**Client Reference:** 4083-35/PM/(30)GMHPP/2019

**Dated:** 29-10-2019

**SOM Lab Ref:** CED/SOM/1668 (Page-1/1)

**Dated:** 01-11-2019

**Test:** Tension Test & Bend Test

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

**Sample Type:** Deformed Bar(Pak Steel)

**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 <sup>2</sup>	mm <sup>2</sup>	kN	kN	MPa	MPa	MPa	MPa	mm	mm	%	
1	3.802	25	24.82	491	484	201.70	282.90	411	417	576	585	40.0	200	20.0	
2	3.764	25	24.71	491	479	192.70	280.50	393	402	571	586	45.0	200	22.5	
3	3.757	25	24.69	491	479	204.00	285.70	416	427	582	597	40.0	200	20.0	
4	3.772	25	24.73	491	480	199.90	281.70	407	417	574	587	37.5	200	18.8	
5	3.762	25	24.70	491	479	186.00	270.70	379	389	551	565	40.0	200	20.0	
6	3.766	25	24.72	491	480	191.50	273.00	390	400	556	570	45.0	200	22.5	
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**BEND TEST:**

25mm	Sample bend through 180 degrees Satisfactorily without any crack	<b>Note:-</b>  Only Nine Samples Received and Tested
25mm	Sample bend through 180 degrees Satisfactorily without any crack	
25mm	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)

Javed Ali  
Deputy Director (Maint.) National Jighwat Authority, Wazirabad (N-5)

**Test Performed By:**

Dr. /Engr. S. Asad Ali Gillani

**Client Reference:** Gen/DD(Mqaint)/WZD/NHA/2019/1885

**Dated:** 30-10-2019

**SOM Lab Ref:** CED/SOM/1674(Page-1/1)

**Dated:** 01-11-2019

**Test:** Tension Test & 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 <sup>2</sup>	mm <sup>2</sup>	kN	kN	MPa	MPa	MPa	MPa	mm	mm	%	
1	1.556	16	15.88	201	198	97.20	135.70	483	491	675	686	35.0	200	17.5	
2	0.942	12	12.36	113	120	56.00	75.20	495	467	665	627	27.5	200	13.8	
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**BEND TEST:**

16mm	Sample bend through 180 degrees Satisfactorily without any crack	<b>Note:-</b>  Only Four Samples Received and Tested
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](http://www.uet-civil.edu.pk)