

Transtech Engineering Corporation,  
Punjab Thermal Power Plant, Jhang.

Test Performed By: Dr. /Engr. Ubaid A Mughal

Client Reference: TEC/UET/19011601  
SOM Lab Ref: CED/SOM/144(Page-1/1)  
Test: Tension Test & Bend Test  
Sample Type: Deformed Bar (City Steel)

Dated: nil  
Dated: 16-01-2019  
Test Specification: ASTM-A 615  
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	1.511	16	15.64	201	192	91.50	124.20	455	477	618	647	30.0	200	15.0	002
2	1.518	16	15.69	201	193	60.50	123.70	301	313	615	640	37.5	200	18.8	002
3	0.884	12	11.97	113	113	50.50	76.00	447	449	672	675	22.5	200	11.3	001
4	0.889	12	12.01	113	113	50.20	75.20	444	444	665	665	25.0	200	12.5	001
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**BEND TEST:**

16mm	Sample bend through 180 degrees Satisfactorily without any crack	<b>Note:-</b>  <b>Only Six Samples Received and Tested</b>
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)

Brig. Tariq Amin  
 Etoile Constructions, 359 A, Block Phase-5, DHA Lahore

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		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	1.516	16	15.68	201	193	108.00	140.70	537	560	700	730	25.0	200	12.5	
2	0.884	12	11.98	113	113	53.00	77.00	469	471	681	684	27.5	200	13.8	
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**BEND TEST:**

16mm	Sample bend through 180 degrees Satisfactorily without any crack	<b>Note:-  Only Four Samples Received and Tested</b>
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)