

Ejaz Khan  
Resident Engineer , Asif Ali & Associates (Pvt) Ltd. Lahore

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

**Client Reference:** THDP/RE/01/563

**Dated:** 18-09-2020

**SOM Lab Ref:** CED/SOM/3036(Page-1/1)

**Dated:** 01-10-2020

**Test:** Tension and 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	1.618	16	16.20	201	206	103.50	129.50	515	503	644	629	30.0	200	15.0	
2	1.622	16	16.22	201	207	104.70	130.20	521	507	648	630	35.0	200	17.5	
3	0.894	12	12.04	113	114	62.70	77.20	554	551	683	678	25.0	200	12.5	
4	0.903	12	12.10	113	115	61.70	76.70	546	537	678	667	25.0	200	12.5	
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**BEND TEST:**

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

Abdul Ghafar  
Project Manager Liberty Builders, Lahore

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

Client Reference: ST/UET/ 20201001

SOM Lab

Ref: 3032(Page-1/1)

Dated: 01-10-2020

Dated: 01-10-2020

Test: Tension Test & Bend Test

Test Specification:

ASTM-A-615

Gauge Length: 8 inch

Sample Type:

Deformed Bar( AF 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	0.647	4	0.492	0.20	0.190	7.03	9.02	77560	81650	99480	104720	1.00	8.0	12.5	
2	0.649	4	0.493	0.20	0.191	6.98	8.84	77000	80630	97460	102050	1.00	8.0	12.5	
3	0.635	4	0.488	0.20	0.187	6.37	8.23	70260	75140	90720	97020	0.90	8.0	11.3	
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**BEND TEST:**

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

Note: Please always confirm the results of above report on web [www.uet-civil.edu.pk](http://www.uet-civil.edu.pk)

Engr. Tariq Hassan

Test Performed By:

Dr. /Engr.

M. Irfan Ul Hassan

Deputy Director (Works) for Mines Labour Welfare Commissioner Punjab, Lahore

Client Reference: MLW/C.E/MT/50/17/7672

SOM Lab

Ref: 3033(Page-1/1)

Dated: 28-09-2020

Dated: 01-10-2020

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 <sup>2</sup>	in <sup>2</sup>	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	0.498	4	0.431	0.20	0.146	3.54	5.32	39010	53440	58680	80380	1.30	8.0	16.3	
2	0.491	4	0.428	0.20	0.144	3.41	5.27	37660	52300	58120	80720	1.10	8.0	13.8	
3	0.496	4	0.431	0.20	0.146	3.47	5.22	38220	52360	57560	78840	1.20	8.0	15.0	
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**BEND TEST:**

--	No Bend test performed	<b>Note:-</b>  Only Three Samples Received and Tested

Note: Please always confirm the results of above report on web [www.uet-civil.edu.pk](http://www.uet-civil.edu.pk)

Engr. Irfan Ali  
 Manager Project, Ittefaq Construction Services, Lahore

**Test Performed By:** Dr. /Engr. M. Irfan UI Hassan

**Client Reference:** ICS/H.O/B.T.P/01

**SOM Lab**

**Ref:** 3034(Page-1/1)

**Dated:** 29-09-2020

**Dated:** 01-10-2020

**Test:** Tension Test & Bend Test

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

**Gauge Length:** 8 inch

**Sample Type:** Deformed Bar

ASTM-A-615

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	2.680	8	1.002	0.79	0.788	24.36	33.23	68020	68190	92770	93010	1.30	8.0	16.3	
2	2.674	8	1.000	0.79	0.786	24.06	32.93	67160	67500	91920	92390	1.40	8.0	17.5	
3	1.478	6	0.743	0.44	0.434	14.98	19.01	75110	76150	95290	96610	1.10	8.0	13.8	
4	1.454	6	0.737	0.44	0.427	16.21	20.18	81240	83720	101170	104250	1.00	8.0	12.5	
5	0.600	4	0.473	0.20	0.176	6.39	8.23	70480	80090	90720	103090	1.20	8.0	15.0	
6	0.614	4	0.479	0.20	0.180	6.17	7.97	68010	75570	87910	97670	1.10	8.0	13.8	
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**BEND TEST:**

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