

Muhammad Danish Khurshid  
 Manager Construction, Orient Electronice (Pvt) Ltd, Lahore

**Test Performed By:** Dr. /Engr. Nauman Khurram

**Client Reference:** OSH-SO/UET/Steel Test/190421-05

**Dated:** 19-04-2021

**SOM Lab Ref:** CED/SOM/4209 (Page-1/1)

**Dated:** 19-04-2021

**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	2.262	19	19.15	284	288	143.50	196.00	506	499	691	681	37.5	200	18.8	
2	2.226	19	19.00	284	284	144.00	197.20	508	508	696	696	37.5	200	18.8	
3	0.988	13	12.66	133	126	64.50	84.70	486	513	638	673	30.0	200	15.0	
4	0.984	13	12.63	133	125	64.00	84.20	482	511	634	673	30.0	200	15.0	
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**BEND TEST:**

19mm	Sample bend through 180 degrees Satisfactorily without any crack	<b>Note:-</b>  Only Six Samples Received and Tested
13mm	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)

Khalid Mahmood

Resident Engineer, NESPAK JV Turk Pak Resident Const. Supervision for Establishment of D. G. Khan (M/s ZKB)

**Test Performed By:**

Dr. /Engr. Nauman Khurram

**Client Reference:** 4161/RE/SFMKB/DGK/297

**SOM Lab Ref:** 4207(Page-1/1)

**Dated:** 13-04-2021

**Dated:** 19-04-2021

**Test:** Tension Test & Bend Test

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

**Gauge Length:** 8 inch

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

ASTM-A-615

Deformed Bar( Ittefaq 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	1.504	6	0.750	0.44	0.442	13.30	20.95	66680	66380	105000	104530	1.50	8.0	18.8	
2	1.499	6	0.749	0.44	0.441	13.32	20.87	66780	66630	104590	104360	1.40	8.0	17.5	
3	0.658	4	0.496	0.20	0.193	5.47	8.26	60370	62560	91050	94350	1.30	8.0	16.3	
4	0.654	4	0.494	0.20	0.192	5.50	8.31	60700	63230	91610	95430	1.30	8.0	16.3	
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**BEND TEST:**

# 6	Sample bend through 180 degrees Satisfactorily without any crack
# 4	Sample bend through 180 degrees Satisfactorily without any crack

**Note:-**  
Only Six 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)

Sajid Mahmood

**Test Performed By:**

Dr. /Engr. Nauman Khurram

Manager Construction Projects, 3 & 4, Tipu Block New Garden Town, Allied Bank Head Office, Lahore

**Client Reference:** HOL/ENGG. C.P./SM/2021/23

**SOM Lab** 4211 (Page-

**Ref:** 1/1)

**Dated:** 19-04-2021

**Dated:** 19-04-2021

**Test:** Tension Test & Bend Test

**Test Specification:**

ASTM-A-615

**Gauge Length:** 8 inch

**Sample Type:**

Deformed Bar (Amrili 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	2.641	8	0.994	0.79	0.776	26.91	32.87	75130	76490	91780	93430	1.40	8.0	17.5	
2	2.663	8	0.998	0.79	0.783	27.52	32.74	76840	77530	91410	92230	1.20	8.0	15.0	
3	1.496	6	0.748	0.44	0.440	14.88	18.25	74600	74600	91460	91460	1.20	8.0	15.0	
4	1.489	6	0.747	0.44	0.438	15.46	18.71	77510	77870	93760	94190	1.10	8.0	13.8	
5	1.053	5	0.627	0.31	0.309	11.47	13.32	81590	81850	94790	95090	1.10	8.0	13.8	
6	1.069	5	0.632	0.31	0.314	11.18	13.12	79560	78540	93340	92150	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	
# 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)

Sajid Khawaja  
Resident Engineer, EA Consulting (Pvt) Ltd.

Test Performed By: Dr. /Engr. Nauman Khurram

Client Reference: EA/FGEHA/LHE/120

SOM Lab 4212(Page-

Ref: 1/1)

Dated: 19-04-2021

Dated: 19-04-2021

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	2.709	8	1.007	0.79	0.796	27.73	37.61	77410	76820	105010	104220	1.00	8.0	12.5	
2	2.665	8	0.998	0.79	0.783	28.64	38.38	79970	80680	107140	108100	0.90	8.0	11.3	
3	2.729	8	1.011	0.79	0.802	27.52	36.82	76840	75690	102790	101250	1.00	8.0	12.5	
4	1.519	6	0.754	0.44	0.446	16.46	20.92	82520	81410	104850	103440	1.20	8.0	15.0	
5	1.567	6	0.766	0.44	0.461	21.05	24.54	105510	100710	122990	117380	0.90	8.0	11.3	
6	1.513	6	0.753	0.44	0.445	16.69	20.97	83640	82700	105100	103920	1.00	8.0	12.5	
7	0.664	4	0.498	0.20	0.195	6.95	8.97	76660	78630	98920	101460	1.00	8.0	12.5	
8	0.659	4	0.497	0.20	0.194	7.03	9.04	77560	79960	99710	102790	0.90	8.0	11.3	
9	0.657	4	0.496	0.20	0.193	8.05	9.79	88800	92030	107910	111830	0.80	8.0	10.0	
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**BEND TEST:**

# 8	Sample bend through 180 degrees Satisfactorily without any crack	<b>Note:-</b>  Only Twelve 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)