

Jamal Abdul Nasir

**Test Performed By:**

Dr. /Engr.

S. Asad Ali Gillani

Senior Resident Engineer, ACES (Pvt) Ltd -Site Office - Secto-A DHA, Multan

**Client Reference:** ACES/SEC-A/LAB/013

**Dated:** 11-06-2021

**SOM Lab Ref:** CED/SOM/4463 (Page-1/1)

**Dated:** 14-06-2021

**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	3.853	25	25.00	491	491	274.70	363.00	560	560	739	740	35.0	200	17.5	
2	3.837	25	24.95	491	489	274.00	362.00	558	561	737	741	32.5	200	16.3	
3	2.415	20	19.79	314	308	187.00	232.50	595	608	740	756	32.5	200	16.3	
4	2.431	20	19.86	314	310	188.00	232.70	598	607	741	752	32.5	200	16.3	
5	0.897	12	12.06	113	114	73.70	86.00	652	646	760	753	27.5	200	13.8	
6	0.898	12	12.07	113	114	73.70	86.20	652	645	762	754	25.0	200	12.5	
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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
20mm	Sample bend through 180 degrees Satisfactorily without any crack	
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)

M. Shfiq  
Project Manager, Gulberg City Centre, Lahore

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

**Client Reference:** GCC/MT/020  
**SOM Lab Ref:** CED/SOM/4464 (Page-1/1)

**Dated:** 10-06-2021  
**Dated:** 14-06-2021

**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	3.875	25	25.08	491	494	242.70	347.70	494	492	708	704	37.5	200	18.8	
2	3.864	25	25.03	491	492	225.00	328.00	458	458	668	667	35.0	200	17.5	
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**BEND TEST:**

25mm	Sample bend through 180 degrees Satisfactorily without any crack	<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. M. Muzaffar Nawaz  
Sub Divisional Officer, RMU, Rawalpindi

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

**Client Reference:** RMU/SDO/2291-94  
**SOM Lab Ref:** CED/SOM/4471 (Page-1/1)  
**Test:** Tension Test  
**Sample Type:** Deformed Bar

**Dated:** 29-05-2021  
**Dated:** 14-06-2021  
**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	4.748	28	27.75	616	605	228.70	355.00	371	379	577	587	25.0	200	12.5	
2	4.733	28	27.71	616	603	229.50	361.50	373	381	587	600	25.0	200	12.5	
3	1.833	16	17.24	201	234	99.00	154.20	492	424	767	661	30.0	200	15.0	
4	0.995	12.7	12.70	123	127	56.50	84.50	460	446	689	667	27.5	200	13.8	
5	1.020	12.7	12.86	123	130	61.20	91.50	499	471	746	705	27.5	200	13.8	
6	0.990	12.7	12.67	123	126	73.50	87.70	599	583	715	696	25.0	200	12.5	
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**BEND TEST:**

--	No Bend test performed	<b>Note:-</b>  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)

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

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

**Client Reference:** OSH-SO/UET/Kamran Steel Test/110621-21

**Dated:** 14-06-2021

**SOM Lab Ref:** CED/SOM/4476 (Page-1/2)

**Dated:** 14-06-2021

**Test:** Tensile 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	3.833	25	24.93	491	488	239.20	326.70	487	491	666	670	35.0	200	17.5	
2	3.847	25	24.98	491	490	238.70	317.50	486	488	647	648	37.5	200	18.8	
3	2.515	20	20.20	314	320	152.00	210.00	484	475	668	656	37.5	200	18.8	
4	2.494	20	20.11	314	318	153.00	214.00	487	482	681	674	32.5	200	16.3	
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**BEND TEST:**

25mm	Sample bend through 180 degrees Satisfactorily without any crack	<b>Note:-</b>  Only Six Samples Received and Tested
20mm	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)

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

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

**Client Reference:** OSH-SO/UET/Kamran Steel Test/140621-20

**Dated:** 14-06-2021

**SOM Lab Ref:** CED/SOM/4476 (Page-2/2)

**Dated:** 14-06-2021

**Test:** Tensile 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	2.200	19	18.88	284	280	134.70	189.20	475	482	667	676	32.5	200	16.3	
2	2.219	19	18.97	284	283	132.20	188.20	466	468	664	666	32.5	200	16.3	
3	0.979	13	12.60	133	125	65.50	83.50	493	526	629	670	32.5	200	16.3	
4	0.868	13	11.87	133	111	63.20	88.70	476	572	668	802	32.5	200	16.3	
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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)

Shakeel Ahmed  
Project Manager, Condrill (Pvt.) LtdLahore

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

Client Reference: CD/33-B/268661  
Dated: 14-06-2021  
Test: Tension Test & Bend Test  
Gauge Length: 8 inch

SOM Lab  
Ref: 4465(Page-1/1)  
Dated: 14-06-2021  
Test Specification: ASTM-A-615  
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	2.645	8	0.995	0.79	0.777	26.07	34.76	72770	73990	97040	98670	1.00	8.0	12.5	
2	1.508	6	0.751	0.44	0.443	13.07	19.39	65510	65060	97180	96530	1.40	8.0	17.5	
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Witnessed By: Shoaib Zahid, Sr. Officer Construction B.S.S

**BEND TEST:**

# 8 Sample bend through 180 degrees Satisfactorily without any crack

# 6 Sample bend through 180 degrees Satisfactorily without any crack

**Note:-**

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)

Safdar Hussain  
Resident Engineer, ACE, Danish School Mankera Residency

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

Client Reference: ACE/RE-PDS/MNK/BHK/21/415

SOM Lab

Ref: 4466(Page-1/1)

Dated: 14-06-2021

Dated: 14-06-2021

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	1.472	6	0.743	0.44	0.433	12.10	18.62	60650	61630	93350	94860	1.40	8.0	17.5	
2	1.480	6	0.744	0.44	0.435	12.39	18.83	62080	62800	94370	95460	1.60	8.0	20.0	
3	1.047	5	0.626	0.31	0.308	9.96	12.86	70860	71320	91520	92120	1.00	8.0	12.5	
4	1.041	5	0.624	0.31	0.306	10.62	13.53	75570	76560	96240	97500	1.10	8.0	13.8	
5	0.657	4	0.496	0.20	0.193	6.44	9.19	71040	73620	101390	105070	1.10	8.0	13.8	
6	0.661	4	0.497	0.20	0.194	6.24	9.09	68800	70920	100270	103370	1.00	8.0	12.5	
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**BEND TEST:**

# 6	Sample bend through 180 degrees Satisfactorily without any crack	<b>Note:-</b>  Only Nine Samples Received and Tested
# 5	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)

Nafiz OZCAN

Test Performed By:

Dr. /Engr. S. Asad Ali Gillani

Contractor's Representative, SA - RA Energy, Construction Trade and Industry Co. Inc. Lahore

Client Reference: MIG/2021/539

SOM Lab 4467,4468(Page-

Ref: 1/1)

Dated: 11-06-2021

Dated: 11-06-2021

Test: Tension Test & Bend Test

Test Specification:

ASTM-A-615

Gauge Length: 8 inch

Sample Type:

Deformed Bar(SJ 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	2.627	8	0.991	0.79	0.772	27.12	34.32	75700	77470	95820	98050	1.50	8.0	18.8	
2	2.776	8	1.019	0.79	0.816	31.31	37.99	87420	84640	106060	102680	1.30	8.0	16.3	
3	2.646	8	0.995	0.79	0.778	26.96	33.61	75270	76430	93830	95270	1.40	8.0	17.5	
4	1.471	6	0.742	0.44	0.432	14.65	18.88	73430	74790	94630	96380	1.60	8.0	20.0	
5	1.480	6	0.744	0.44	0.435	14.37	18.81	72050	72870	94270	95360	1.50	8.0	18.8	
6	1.503	6	0.750	0.44	0.442	14.48	19.11	72560	72230	95800	95370	1.50	8.0	18.8	
7	0.667	4	0.500	0.20	0.196	6.47	8.53	71380	72840	94090	96010	1.20	8.0	15.0	
8	0.672	4	0.501	0.20	0.197	6.52	8.72	71940	73040	96110	97570	1.20	8.0	15.0	
9	0.680	4	0.505	0.20	0.200	6.42	8.58	70820	70820	94650	94650	1.40	8.0	17.5	
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Witnessed By: Sohaib Ali, Sub-Engineer, Nespak

**BEND TEST:**

# 8(Sr.1&2)	Sample bend through 180 degrees Satisfactorily without any crack	<b>Note:-</b>  Only Eighteen Samples Received and Tested
# 8 (Sr. 3)	Sample bend through 180 degrees Satisfactorily without any crack	
# 6(Sr.4&5)	Sample bend through 180 degrees Satisfactorily without any crack	
# 6( Sr. 6)	Sample bend through 180 degrees Satisfactorily without any crack	
# 4(Sr.7,8,9)	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)



Engr. Muhammad Ehsan

Test Performed By:

Dr. /Engr. S. Asad Ali Gillani

Project Director, ELITE ENGINEERING (PVT) Ltd. (Project: Sitara Heights 3-Jays Tower, Gulberg-III. Lahore)

Client Reference: EEPL/SH/001/006

SOM Lab Ref: 4469(Page-1/1)

Dated: 14-06-2021

Dated: 14-06-2021

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	1.465	6	0.741	0.44	0.431	16.00	20.87	80220	81900	104590	106780	1.40	8.0	17.5	
2	1.486	6	0.746	0.44	0.437	15.97	21.61	80070	80620	108320	109070	1.10	8.0	13.8	
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**BEND TEST:**

# 6	Sample bend through 180 degrees Satisfactorily without any crack	<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)

Maj Adnan khalid®

Test Performed By:

Dr. /Engr.

S. Asad Ali  
Gillani

Dy Dir MTL, Infra Dev Works of DHA Ph -9, Pkg-8 - (M/S MAAKSONS)

Client Reference: 408/241/E/Lab/82/13571

SOM Lab

Ref: 4470(Page-1/1)

Dated: 11-06-2021

Dated: 14-06-2021

Test: Tension Test &amp; Bend Test

Test Specification:

ASTM-A-615

Gauge Length: 8 inch

Sample Type:

Deformed Bar ( Mughal 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	1.477	6	0.743	0.44	0.434	14.09	18.83	70620	71590	94370	95680	1.50	8.0	18.8	
2	1.481	6	0.744	0.44	0.435	14.14	18.83	70870	71690	94370	95460	1.40	8.0	17.5	
3	1.040	5	0.624	0.31	0.306	10.47	13.61	74480	75460	96820	98080	1.40	8.0	17.5	
4	1.045	5	0.625	0.31	0.307	10.47	13.63	74480	75210	96960	97910	1.30	8.0	16.3	
5	0.658	4	0.496	0.20	0.193	6.39	8.94	70480	73040	98580	102160	1.10	8.0	13.8	
6	0.668	4	0.500	0.20	0.196	6.44	8.99	71040	72490	99150	101170	1.00	8.0	12.5	
7	0.662	4	0.498	0.20	0.195	6.54	8.97	72170	74020	98920	101460	1.00	8.0	12.5	
8	0.661	4	0.497	0.20	0.194	6.44	8.94	71040	73240	98580	101630	1.10	8.0	13.8	
9	0.660	4	0.497	0.20	0.194	6.70	8.92	73850	76140	98360	101400	0.90	8.0	11.3	
10	0.662	4	0.498	0.20	0.195	6.42	8.89	70820	72640	98020	100530	1.20	8.0	15.0	

**BEND TEST:**

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

Engr. M. Muzaffar Nawaz  
Sub Divisional Officer, RMU, Rawalpindi

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

Client Reference: RMU/SDO/22  
Dated: 29-05-2021  
Test: Tension Test  
Gauge Length: 8 inch

SOM Lab  
Ref: 4471 (Page-1/1)  
Dated: 14-06-2021  
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	2.685	8	1.002	0.79	0.789	28.87	35.80	80590	80700	99950	100070	1.50	8.0	18.8	
2	2.710	8	1.007	0.79	0.796	28.54	35.73	79680	79080	99750	98990	1.40	8.0	17.5	
3	1.507	6	0.751	0.44	0.443	17.53	21.30	87880	87290	106790	106070	1.20	8.0	15.0	
4	1.500	6	0.749	0.44	0.441	17.53	20.90	87880	87690	104750	104510	1.10	8.0	13.8	
5	0.683	4	0.506	0.20	0.201	7.26	9.14	80040	79640	100830	100330	1.30	8.0	16.3	
6	0.679	4	0.505	0.20	0.200	7.08	8.99	78130	78130	99150	99150	1.20	8.0	15.0	
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**BEND TEST:**

--	No Bend test performed	<b>Note:-</b>  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)

Umair Maqsood  
Sub Divisional Officer, Building Sub Division, Assembly, Lahore

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

S. Asad Ali  
Gillani

**Client Reference:** 417-

**Dated:** 03-06-2021

**Test:** Tension Test & Bend Test

**Gauge Length:** 8 inch

**Test Specification:**

**Sample Type:**

**SOM Lab**

**Ref:** 4472(Page-1/1)

**Dated:** 14-06-2021

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	2.660	8	0.998	0.79	0.782	25.61	35.73	71490	72220	99750	100770	1.10	8.0	13.8	
2	2.671	8	1.000	0.79	0.785	25.33	35.58	70720	71170	99320	99950	1.40	8.0	17.5	
3	1.494	6	0.748	0.44	0.439	13.02	18.42	65250	65400	92330	92540	1.40	8.0	17.5	
4	1.492	6	0.747	0.44	0.438	13.43	18.60	67290	67600	93250	93680	1.30	8.0	16.3	
5	0.658	4	0.496	0.20	0.193	6.03	8.33	66550	68960	91840	95170	1.20	8.0	15.0	
6	0.658	4	0.496	0.20	0.193	6.27	8.53	69130	71640	94090	97500	1.20	8.0	15.0	
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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)

Muhammad Akhtar

Test Performed By:

Dr. /Engr.

S. Asad Ali Gillni

Sub Engineer (Civil), Daanish School Chishtian (Project is M/S Global Engineering Workd)

Client Reference: Const/CTN/06/2021/236

SOM Lab

Ref:

4477(Page-1/1)

Dated: 01-06-2021

Dated:

14-06-2021

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	1.476	6	0.743	0.44	0.434	15.21	18.91	76240	77290	94780	96090	1.50	8.0	18.8	
2	1.482	6	0.745	0.44	0.436	14.98	18.78	75110	75800	94120	94980	1.40	8.0	17.5	
3	0.593	4	0.471	0.20	0.174	6.60	7.72	72730	83600	85100	97810	1.20	8.0	15.0	
4	0.589	4	0.469	0.20	0.173	6.52	7.72	71940	83170	85100	98380	1.10	8.0	13.8	
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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)

Project Director,  
Sheranwala Flyover, LDA, Lahore

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

Client Reference: PD/SF/LDA/17

SOM Lab 4478(Page-

Ref: 1/1)

Dated: 12-06-2021

Dated: 14-06-2021

Test: Tension Test & Bend Test

Test Specification: ASTM-A-615

Guage 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	2.562	8	0.979	0.79	0.753	24.84	33.00	69350	72760	92120	96650	1.00	8.0	12.5	
2	2.515	8	0.970	0.79	0.739	23.72	31.88	66220	70790	88990	95130	1.20	8.0	15.0	
3	1.506	6	0.751	0.44	0.443	15.67	19.54	78530	78000	97950	97290	1.20	8.0	15.0	
4	1.506	6	0.751	0.44	0.443	15.85	19.67	79450	78920	98610	97950	1.40	8.0	17.5	
5	0.592	4	0.471	0.20	0.174	5.50	7.51	60700	69770	82850	95230	1.20	8.0	15.0	
6	0.589	4	0.469	0.20	0.173	4.91	6.49	54180	62640	71610	82780	1.30	8.0	16.3	
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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)

## Test Performed by: Dr. M. Irfan Ul Hassan

M/S Lonman Industrial Sales

97-Circular Road, Lahore

Project: Construction of 15M Long 408875o Skewed RCC Deck Grider Bridge On Road From Gardez to Rohani Baba, Phase -1, Lot 1, at CH, 0+000 – 6+550

Afghanistan (NRAP)

P Coad NAP/MOPW/98/W-2433/NCB

Client Name: NOPW ( Ministry of Public Works)

Client Reference No.: 2232/RE/03/38

Dated: 12-06-2021

SOM Lab Ref: CED/SOM/4474(Page-1/1)

Dated: 14-06-2021

Test: Tensile Strength Test, Elongation AT Break, Comp. Set Test & Hardness Test

Sample Type: TESTING OF BEARING RUBBER PAD( 300 x 400 x 60mm )

### TENSILE STRENGTH TEST (AS PER ASTM-D-412)

S. No	Sample Size (mm x mm)	Tensile Strength at (kN)	Tensile Strength (MPa)	% age Elongation
1	6.0 x 2.8	0.31	18.45	540.0

### - COMPRESSION SET TEST (AS PER ASTM-D-395)

S. No.	Thickness of Sample (mm)	Final Thickness (mm)	Compression set (%)
1	2.8	2.76	1.428

### - HARDNESS TEST (AS PER ASTM-D-2240 )

S. No	Sample Type	Hardness (Shore A)
1	Bearing Rubber Pad	61.83

Project: Construction of 15M Long 408875o Skewed RCC Deck Grider Bridge On Road From Gardez to Rohani Baba, Phase -1, Lot 1, at CH, 0+000 – 6+550

Afghanistan (NRAP)

P Coad NAP/MOPW/98/W-2433/NCB

Client Name: NOPW ( Ministry of Public Works)

**Test Performed by:** Dr. M Irfan Ul Hassan

Deputy Director  
Road Division –III, CDA

Project: Repair/Maintenance of Existing Bridges and Parapets on Islamabad Highway,  
ISLAMABAD

**Client Reference No.:** CDA/DDRD-III/2021/524

Dated: 11-06-2021

**SOM Lab Ref:** CED/SOM/4475(Page-1/1)

Dated: 14-06-2021

**Test:** Tensile Strength Test, Elongation, Hardness & Comp. Set Test

**Sample Type:** Expansion Joint by ETIC FRANCE

**TENSILE STRENGTH TEST (AS PER ASTM-D-412)**

S. No	Sample Size (mm x mm)	Tensile Strength at (kN)	Tensile Strength (MPa)	% age Elongation
1	6.0 x 3.0	0.42	23.34	530.0

**- COMPRESSION SET TEST (AS PER ASTM-D-395)**

S. No.	Thickness of Sample (mm)	Final Thickness (mm)	Compression set (%)
1	3.0	2.95	1.667

**- HARDNESS TEST (AS PER ASTM-D-2240)**

S. No	Sample Type	Hardness (Shore A)
1	Expansion Joint	48.50