

Muhammad Waqas Anwar  
Resident Engineer-I, NESPAK, Lahore

Test Performed By: Dr. /Engr. Nauman Khurram

Client Reference: 3772/FMU/103/MWA/04/01

SOM Lab  
Ref: 2531(Page-1/1)

Dated: 03-06-2020

Dated: 05-06-2020

Test: Tension Test & Bend Test

Test Specification:

ASTM-A-615  
Deformed Bar( SJ  
Steel)

Gauge Length: 8 inch

Sample Type:

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	0.669	4	0.501	0.20	0.197	7.70	9.25	84870	86160	101960	103510	0.90	8.0	11.3	
2	0.666	4	0.500	0.20	0.196	7.77	9.33	85660	87410	102860	104950	0.90	8.0	11.3	
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**BEND TEST:**

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

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

Muhammad Ashfaq Ch & Sons (Pvt)

Test Performed By: Dr. /Engr. Nauman Khurram

Ltd.  
 Engineers, Contractor, Lahore

Client Reference: nil  
 Dated: 05-06-2020  
 Test: Tension Test & Bend Test  
 Gauge Length: 8 inch

SOM Lab  
 Ref: 2532(Page-1/1)  
 Dated: 05-06-2020  
 Test Specification: ASTM-A-615  
 Deformed Bar  
 Sample Type:

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	2.547	8	0.977	0.79	0.749	22.91	33.44	63950	67450	93340	98450	1.10	8.0	13.8	
2	2.550	8	0.977	0.79	0.749	22.96	33.56	64090	67600	93680	98810	1.10	8.0	13.8	
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**BEND TEST:**

# 8	Sample bend through 180 degrees Satisfactorily without any crack	<b>Note:- Only Four Samples Received and Tested</b>
# 8	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)

Construction Manager,

Test Performed By:

Dr. /Engr.

M Irfan UI Hassan

NESPAK (Pvt) Ltd. Lahore

Client Reference: 3796/13/MHK/01/49

Dated: 05-06-2020

Test: Tension Test

Gauge Length: 8 inch

SOM Lab

Ref: 2533(Page-1/1)

Dated: 05-06-2020

Test Specification: ASTM-A-615

Deformed

Bar

Sample Type:

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	2.664	8	0.998	0.79	0.783	26.01	35.02	72630	73280	97750	98630	1.30	8.0	16.3	
2	2.664	8	0.998	0.79	0.783	25.94	35.07	72430	73080	97900	98770	1.20	8.0	15.0	
3	2.720	8	1.009	0.79	0.799	25.79	34.83	72000	71190	97240	96150	1.30	8.0	16.3	
4	2.689	8	1.003	0.79	0.790	25.96	34.88	72480	72480	97380	97380	1.30	8.0	16.3	
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**BEND TEST:**

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

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

Sub Divisional Officer  
Highway Sub Division No. 11, Lahore

Test Performed By:

Dr. /Engr.

S. Asad Ali Gillani

Client Reference: 51/SD-II

Dated: 30-05-2020

Test: Tension Test & Bend Test

Gauge Length: 8 inch

Test Specification:

Sample Type:

SOM Lab

Ref:

Dated:

ASTM-A-615

Deformed

Bar

2534(Page-1/1)

05-06-2020

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	2.651	8	0.996	0.79	0.779	25.38	41.28	70860	71860	115260	116880	0.90	8.0	11.3	
2	2.649	8	0.995	0.79	0.778	24.36	41.49	68020	69070	115820	117610	1.10	8.0	13.8	
3	1.578	6	0.769	0.44	0.464	9.17	13.65	45990	43610	68420	64880	1.60	8.0	20.0	
4	1.585	6	0.770	0.44	0.466	9.19	13.63	46090	43520	68320	64500	2.00	8.0	25.0	
5	0.674	4	0.502	0.20	0.198	5.68	8.15	62610	63250	89930	90840	1.20	8.0	15.0	
6	0.673	4	0.502	0.20	0.198	5.58	7.85	61490	62110	86560	87430	1.50	8.0	18.8	
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**BEND TEST:**

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

Maj Adnan khalid®

Dy Dir MTL, Const. of Entry Gate Towards Ring Road Sector-F, Prism-9, DHA Ph-9-(M/S NA Associates)

Test Performed By:

Dr. /Engr.

S. Asad Ali  
Gillani

Client Reference: 408/241/E/Lab/905/11

SOM Lab Ref: 2535(Page-1/1)

Dated: 05-06-2020

Dated: 05-06-2020

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	1.564	6	0.765	0.44	0.460	13.81	20.05	69240	66230	100500	96140	1.20	8.0	15.0	
2	1.558	6	0.764	0.44	0.458	13.37	19.64	67040	64400	98460	94590	1.10	8.0	13.8	
3	0.673	4	0.502	0.20	0.198	6.52	8.46	71940	72670	93300	94240	1.10	8.0	13.8	
4	0.674	4	0.502	0.20	0.198	7.29	9.23	80370	81190	101730	102760	0.90	8.0	11.3	
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**BEND TEST:**

# 6	Sample bend through 180 degrees Satisfactorily without any crack	<b>Note:-</b>  <b>Only Six Samples Received and Tested</b>
# 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. Syed Asad Ali Gillani

Masood Ahmad Nisar  
 Resident Engineer  
 ZEERUK – LOYA – MIHA JV  
 Burma Bridge, Islamabad,

Client Reference No.: ZI/RE/29

Dated: 04-06-2020

SOM Lab Ref: CED/SOM/2536(Page-1/1)

Dated: 05-06-2020

Test: Tensile Test, Elongation at Break, Comp. Set Test & Hardness Test

Sample Type: Expansion Joint ETIC (France)

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

S. No	Sample Size (mm)	Ultimate Load (kN)	Tensile Strength (Mpa)	Elongation at Break(%)
1	6.5 x 2.7	0.42	23.931	510

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

S. No.	Thickness of Sample (mm)	Final Thickness (mm)	Compression set (%)
1	2.70	2.60	3.703

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

S. No	Sample Type	Hardness (Shore A)
1	Bearing Pad	46.5

**Test Performed by: Dr. Syed Asad Ali Gillani**

**Masood Ahmad Nisar  
Resident Engineer  
Burma Bridge, Islamabad,  
(M/s ZEERUK – LOYA – MIHA JV).**

Client Reference No.: ZI/RE/29-A

Dated: 04-06-2020

Test: Tensile Test, Elongation at Break, Tear Test, Comp. Set Test & Hardness Test

Sample Type: Elastomeric Bearing Pad (M/s ARSAN) Turkey

TENSILE STRENGTH AND ELONGATION TEST. (AS PER ASTM-D-412)

S. No	Sample Size (mm)	Ultimate Load (kN)	Tensile Strength (Mpa)	Elongation at Break(%)
1	6.5 x 2.7	0.41	23.361	480

-- TEAR STRENGTH (AS PER ASTM-D-624)

S. No	Sample Size (mm)	Ultimate Load (kN)	Tear Strength (N/mm)
1	12.5 x 2.7	0.30	111.11

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

S. No.	Thickness of Sample (mm)	Final Thickness (mm)	Compression set (%)
1	2.70	2.65	1.851

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

S. No	Sample Type	Hardness (Shore A)
1	Bearing Pad	62.33

Test Performed by: Dr. Asad Ali Gillani

ENG. R Kamil Muslim  
Unique Builder Kabul, Afghanistan  
PROJECT NAME CONSTRUCTION OF KANDAHAR  
SPIN BULDAK 2<sup>ND</sup>, LANE 40KM ROAD ARGHSASN  
320 LINER METER BRIDGE CONTRACT  
NO. NPA/MOPW/96/W-1814/NCB

Client Reference No.: LHE/LIS/5528

Dated: 09-06-2020

SOM Lab Ref: CED/SOM/2560(Page-1/1)

Dated: 10-06-2020

Test: Tensile Test, Elongation at Break, Tear Test, & Hardness Test

Sample Type: Elastomeric Bearing Pad

-TENSILE STRENGTH AND ELONGATION TEST. (AS PER ASTM-D-412)

S. No	Sample Size(mm)	Ultimate Load (kN)	Tensile Strength (Mpa)	Tensile Strength (kg/cm <sup>2</sup> )	Elongation at Break(%)
1	6.5 x 3.9	0.62	24.457	249.39	460

- TEAR STRENGTH (AS PER ASTM-D-624)

S. No	Sample Size (mm)	Ultimate Load (kN)	Tear Strength (N/mm)
1	12.5 x 3.9	0.22	56.410

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

S. No	Sample Type	Hardness (Shore A)
1	Bearing Pad	60-66



