Sohail Hussain Wyne,® Test Performed By: Dr. /Engr. S Asad Ali Gillani

ADH (Works)-IV Lahore.(Const Of 103 x SUHs (45x75) Sec-S Askari-X Lahore)

**SOM Lab** 

 Client Reference:
 607/Proj//Sec-S/Steel /ADH-IV
 Ref:
 228 (Page-1/1)

 Dated:
 22-04-2022
 Dated:
 22-04-2022

Test: Tension Test & Bend Test Test Specification: ASTM-A-615

Gauge Length: 8 inch Sample Type: Deformed Bar (Batala Premium)

		D	ia.	А	rea	Yield	Ultimate	Yield	Stress	Ult. S	Stress			_	
S.No.	Weight	Nominal	Calculated	Nominal	Calculated	Load	Load	(according to nominal area)	(according to measured area)	(according to nominal area)	(according to measured area)	Elongation	Gauge Length	%age Elongation	Remarks
	lb/ft	#	in	in <sup>2</sup>	in <sup>2</sup>	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	1.505	6	0.750	0.44	0.442	13.86	19.64	69490	69180	98460	98020	1.40	8.0	17.5	
2	0.645	4	0.492	0.20	0.190	6.27	9.19	69130	72770	101390	106730	1.20	8.0	15.0	
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## **BEND TEST:**

 No Bend test performed	Note:-		
	Only Two Samples		
	Received and Tested		

Note: Please always confirm the results of above report on web www.uet-civil.edu.pk

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

Construction Company Engrs & Contractors, Sheikhupura.

**SOM Lab** 

 Client Reference:
 Nil
 Ref:
 230 (Page-1/1)

 Dated:
 22-04-2022
 Dated:
 22-04-2022

Test:Tension Test & Bend TestTest Specification:ASTM-A-615Gauge Length:8 inchSample Type:Deformed Bar

		D	ia.	Α	rea	Yield	Ultimate	Yield	Stress	Ult. S	Stress			n	
S.No.	Weight	Nominal	Calculated	Nominal	Calculated	Load	Load	(according to nominal area)	(according to measured area)	(according to nominal area)	(according to measured area)	Elongation	Gauge Length	%age Elongation	Remarks
	lb/ft	#	in	in <sup>2</sup>	in <sup>2</sup>	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	2.628	8	0.991	0.79	0.772	22.40	36.49	62520	63980	101880	104260	1.40	8.0	17.5	
2	1.451	6	0.736	0.44	0.426	11.64	18.06	58350	60270	90540	93520	0.80	8.0	10.0	
3	0.638	4	0.488	0.20	0.187	5.20	8.33	57330	61320	91840	98220	1.00	8.0	12.5	
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# **BEND TEST:**

#8	Sample bend through 180 degrees Satisfactorily without any crack	Note:-
# 6	Sample bend through 180 degrees Satisfactorily without any crack	
# 4	Sample bend through 180 degrees Satisfactorily without any crack	Only Six Samples
		Received and Tested

Note: Please always confirm the results of above report on web www.uet-civil.edu.pk

### Test Performed by: Dr. S. Asad Ali Gillani

Engr.Syed Taufeeq Ahmad Resident Engineer CEC-H&B(JV). Mingora Distt.Swat.

Project: Construction Supervision Of "F/S Design and Construction of 02 No Flyover On Mingora-Kanju Rd SH:Mingora Bypass and Kanju Chowk, Distt.Swat, SH:Flyover at Mingora Bypass Rd.(Phase-I).

Reference No.: CEC-H&B/PKHA/RE/SWT/213 Dated: 21-02-2022

**SOM Lab Ref**: CED/SOM/085(Page-1/2) Dated: 31-03-2022

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

**Sample Type:** Elastomeric Bearing Pad

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

S. No	Sample Size	Ultimate Load (kN)	Tensile Strength (Mpa)	Tensile Strength	Elongation at Break(%)
	(mm)	(K14)		(kg/cm²)	
1	6.3 x 2.4	0.90	59.52	606.90	420.0
2	7.2 x 2.3	1.13	68.23	695.80	460.0

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

S. No	Sample Size (mm)	Ultimate Load (kN)	Tear Strength (N/mm)
1	17.8 x 2.9	0.46	158.62
2	15.2 x 2.7	0.43	159.25

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

S. No.	Thickness of Sample (mm)	Final Thickness (mm)	Compression set (%)
1	2.90	2.81	3.10

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

S. No	Sample Type	Hardness (Shore A)
1	Elastomeric Bearing Pad	63.66

Test Performed by: Dr. S. Asad Ali Gillani

Engr.Syed Taufeeq Ahmad Resident Engineer CEC-H&B(JV). Mingora Distt.Swat.

Project: Construction Supervision Of "F/S Design and Construction of 02 No Flyover On Mingora-Kanju Rd SH:Mingora Bypass and Kanju Chowk, Distt.Swat, SH:Flyover at Mingora Bypass Rd.(Phase-I).

Reference No.: CEC-H&B/PKHA/RE/SWT/213 Dated: 21-02-2022

**SOM Lab Ref**: CED/SOM/085(Page-1/2) Dated: 31-03-2022

**Test:** Hardness Test (Steel Plate)

**Sample Type:** Elastomeric Bearing Pad

#### **Hardness Test Details:**

Machine used: Avery Rockwell Hardness Testing Machine

(Minor Load: 10 Kgf Major Load: 90.0 kgf Scale: B)

### **Hardness Test Results**

Sample No. Sample Type		Hardness
1	Elastomeric Bearing Pad (Plate)	HR – 87.16 – B

Note: Please always confirm the results on web www.uet-civil.edu.pk

# Test Performed by: Dr. S. Asad Ali Gillani

Engr. Javed Asad

CRE JIP Consultants Jalalpur Shrif.

(Project: Construction Of Jalalpur Irrigation Canal And Its System (No.JIP/WKS/ICB/P3)).

**Reference No.**: JIPIC/TECH/P-3/CRE/75 Dated: 04-04-2022

**SOM Lab Ref**: CED/SOM/114(Page-1/1) Dated: 05-04-2022

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

**Sample Type:** Elastomeric Bearing Pad (Longman)

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

S. No	Sample Size (mm)	Ultimate Load (kN)	Tensile Strength (Mpa)	Tensile Strength (kg/cm²)	Elongation at Break(%)
1	8.3 x 2.6	0.40	18.53	189.0	420.0
2	9.4 x 2.6	0.47	19.20	196.0	400.0

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

S. No	Sample Size (mm)	Ultimate Load (kN)	Tear Strength (N/mm)
1	14.3 x 2.7	0.18	66.60
2	15.4 x 2.7	0.20	74.00

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

S. No.	Thickness of Sample (mm)	Final Thickness (mm)	Compression set (%)
1	2.7	2.64	2.22

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

S. No	Sample Type	Hardness (Shore A)
1	Elastomeric Bearing Pad	63.0