

Engr. Farrukh Alvi

Test Performed By:

Dr. /Engr.

Asad Ali Gillani

Dy. General Manager Works.Habib Rafiq Engineering (Pvt.) Ltd.(101 Tower,Lahore)

Client Reference: HRLE/SKG/2025/Hunza/25-26.505/222

SOM Lab Ref:

1803 (P-1/1)

Dated: 22-09-2025

Dated:

22-09-2025

Test: Tension Test

Test Specification:

ASTM-A-615

Gauge Length: 200 mm

Sample Type:

Deformed Bar (Hunza 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)				
	kg/m	mm	mm	mm <sup>2</sup>	mm <sup>2</sup>	kN	kN	MPa	MPa	MPa	MPa	mm	mm	%	
1	3.814	25	24.88	491	486	230.20	307.70	469	474	627	634	42.5	200	21.3	
2	3.845	25	24.97	491	490	234.20	310.00	477	479	631	633	37.5	200	18.8	
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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)

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

Engr. Farrukh Alvi,  
Dy.General Manager (Works)  
Habib Rafiq Engineering (Pvt.) Ltd, Lahore  
(101 Tower, Lahore)

**Client Reference No.:** HRLE/SKG/2025/L-19/90-12/224

Dated: 22-09-2025

**SOM Lab Ref:** CED/SOM/1804(Page-1/3)

Dated: 22-09-2025

**Test:** Tensile Test

**Sample Type:** M.S Deformed Steel bar with Coupler (Zahid Engineering)

**Tension Test Results**

Sr. No.	Bar Size	Area	Yield Load	Ultimate Load	Yield Stress	Ultimate stress	Remarks
	( mm )	(mm <sup>2</sup> )	kN	kN	(Mpa)	(Mpa)	
1	12	113	57.0	68.2	504	604	Steel Sample breaks at this load
2	12	113	48.5	58.7	429	519	Steel Sample breaks at this load

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

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

Engr. Farrukh Alvi,  
Dy.General Manager (Works)  
Habib Rafiq Engineering (Pvt.) Ltd, Lahore  
(101 Tower, Lahore)

**Client Reference No.:** HRLE/SKG/2025/L-19/255-16/225

Dated: 22-09-2025

**SOM Lab Ref:** CED/SOM/1804(Page-2/3)

Dated: 22-09-2025

**Test:** Tensile Test

**Sample Type:** M.S Deformed Steel bar with Coupler (Zahid Engineering)

#### Tension Test Results

Sr. No.	Bar Size	Area	Yield Load	Ultimate Load	Yield Stress	Ultimate stress	Remarks
	( mm )	(mm <sup>2</sup> )	kN	kN	(Mpa)	(Mpa)	
1	16	201	92.7	112.7	461	561	Steel Sample breaks at this load
2	16	201	105.0	118.2	522	588	Steel Sample breaks at this load
3	16	201	112.5	125.2	560	623	Steel Sample breaks at this load

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

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

Engr. Farrukh Alvi,  
Dy.General Manager (Works)  
Habib Rafiq Engineering (Pvt.) Ltd, Lahore  
(101 Tower, Lahore)

**Client Reference No.:** HRLE/SKG/2025/L-19/35-28/226

Dated: 22-09-2025

**SOM Lab Ref:** CED/SOM/1804(Page-3/3)

Dated: 22-09-2025

**Test:** Tensile Test

**Sample Type:** M.S Deformed Steel bar with Coupler (Zahid Engineering)

**Tension Test Results**

Sr. No.	Bar Size	Area	Yield Load	Ultimate Load	Yield Stress	Ultimate stress	Remarks
	( mm )	(mm <sup>2</sup> )	kN	kN	(Mpa)	(Mpa)	
1	28	616	289.7	340.7	470	553	Steel Sample breaks at this load

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

**Client Reference No.:** 4891/WASA/WT/RE/Lab/97

**Dated:** 22-09-2025

**SOM Lab Ref:** CED/SOM/1809 (Page 1/3)

**Dated:** 22-09-2025

**Test Type:** Load Test of RPC Manhole Cover

**Test Standard:** Non-standard test was performed as per requirement of the client [Application of load at the center of the Manhole Cover through circular thick steel plate of 15 Inch diameter]

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

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Material Engineer (WT Zone)

EPHE Division, NESPAK Lahore.

[Improvement of Water Supply Sewerage System in Lakhodher UC-174 WAHGA Zone Lahore]

This is with reference to your above-mentioned letter and SOM receipt No.1809 dated: 22-09-2025. The samples of RPC Manhole Cover submitted in the Laboratory has been tested and the result is provided below.

### Load Test Result

Sr. No	Diameter of Manhole Cover	Average Thickness of Manhole Cover	Maximum Load	Observations/Remarks
1	642 mm	72.7 mm	11000 kg	The sample was cracked at this load

**Client Reference No.:** 4891/WASA/WT/RE/Lab-III

**Dated:** 22-09-2025

**SOM Lab Ref:** CED/SOM/1809 (Page 2/3)

**Dated:** 22-09-2025

**Test Type:** Load Test of RPC Manhole Cover

**Test Standard:** Non-standard test was performed as per requirement of the client [Application of load at the center of the Manhole Cover through circular thick steel plate of 15 Inch diameter]

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

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Engr. M. Tausif

Test Performed By:

Dr. /Engr. Asad Ali Gillani

PM-Civil Zubair Grain Products Pvt.Ltd Sahiwal.

Client Reference: Nil

SOM Lab

Ref: 1805 (Page-1/1)

Dated: 22-09-2025

Dated: 22-09-2025

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	1.471	6	0.742	0.44	0.432	13.48	18.55	67550	68800	92990	94720	1.30	8.0	16.3	
2	1.477	6	0.743	0.44	0.434	13.32	18.57	66780	67710	93100	94380	1.20	8.0	15.0	
3	0.644	4	0.491	0.20	0.189	6.17	8.46	68010	71970	93300	98730	1.30	8.0	16.3	
4	0.645	4	0.492	0.20	0.190	6.19	8.46	68230	71830	93300	98210	1.20	8.0	15.0	
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**BEND TEST:**

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

Material Engineer (WT Zone)

EPHE Division, NESPAK Lahore.

[Improvement of Water Supply/ Sewerage System in Jallo Wana & Khairan UC-183 WAHGA Zone Lahore]

This is with reference to your above-mentioned letter and SOM receipt No.1809 dated: 22-09-2025. The samples of RPC Manhole Cover submitted in the Laboratory has been tested and the result is provided below.

### Load Test Result

Sr. No	Diameter of Manhole Cover	Average Thickness of Manhole Cover	Maximum Load	Observations/Remarks
1	645 mm	68.4 mm	10900 kg	The sample was cracked at this load

**Client Reference No.:** 4891/WASA/WT/RE/Lab-104

**Dated:** 22-09-2025

**SOM Lab Ref:** CED/SOM/1809 (Page 3/3)

**Dated:** 22-09-2025

**Test Type:** Load Test of RPC Manhole Cover

**Test Standard:** Non-standard test was performed as per requirement of the client [Application of load at the center of the Manhole Cover through circular thick steel plate of 15 Inch diameter]

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

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Material Engineer (WT Zone)

EPHE Division, NESPAK Lahore.

[Improvement of Water Supply Sewerage System in Momin Pura UC-175 WAHGA Zone Lahore]

This is with reference to your above-mentioned letter and SOM receipt No.1809 dated: 22-09-2025. The samples of RPC Manhole Cover submitted in the Laboratory has been tested and the result is provided below.

### Load Test Result

Sr. No	Diameter of Manhole Cover	Average Thickness of Manhole Cover	Maximum Load	Observations/Remarks
1	645 mm	71.3 mm	13700 kg	The sample was cracked at this load

SUNSHINE HEALTH CARE  
Lahore.(Project Sunshine Medical Tower Shahdra)

Test Performed By: Dr. /Engr. Nauman Khurram

Client Reference: Nil

SOM Lab

Ref: 1806 (Page-1/1)

Dated: 22-09-2025

Dated: 22-09-2025

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	2.707	8	1.007	0.79	0.796	25.33	33.86	70720	70190	94540	93830	1.60	8.0	20.0	
2	2.690	8	1.004	0.79	0.791	25.20	33.61	70350	70260	93830	93710	1.60	8.0	20.0	
3	1.589	6	0.771	0.44	0.467	14.70	20.31	73680	69420	101780	95900	1.60	8.0	20.0	
4	1.581	6	0.769	0.44	0.465	14.60	20.13	73170	69240	100910	95490	1.60	8.0	20.0	
5	0.675	4	0.502	0.20	0.198	5.88	8.43	64860	65520	92960	93900	1.50	8.0	18.8	
6	0.681	4	0.505	0.20	0.200	5.96	8.56	65760	65760	94420	94420	1.40	8.0	17.5	
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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)

Sub Divisional Officer

Test Performed By:

Dr. /Engr. Asad Ali Gillani

BSD Shakargarh.(Program For Revamping of BHU's of North and Central Punjab Distt Narowal)

Client Reference: 3069/Sg

SOM Lab

Ref: 1807 (Page-1/1)

Dated: 12-06-2025

Dated: 22-09-2025

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	1.508	6	0.751	0.44	0.443	12.20	18.11	61160	60750	90800	90180	1.50	8.0	18.8	
2	0.698	4	0.511	0.20	0.205	4.69	6.49	51710	50450	71610	69860	1.70	8.0	21.3	
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**BEND TEST:**

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

Ghulam Abbas, XEN

Test Performed By: Dr. /Engr. Ubaid Mughal

GE(Army)-II LRC.(Const Of Bn Office Block at LRC)(Const Of Coy Block at LRC)(Const of RCC Drain at S/Complex LRC)

Client Reference: 6003/67/E6

SOM Lab

Ref: 1808 (Page-1/1)

Dated: 19-09-2025

Dated: 22-09-2025

Test: Tension Test & Bend Test

Test Specification: ASTM-A-615

Gauge Length: 8 inch

Sample Type: Deformed Bar (Madina 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	1.518	6	0.754	0.44	0.446	13.99	21.00	70100	69160	105260	103840	1.30	8.0	16.3	
2	1.468	6	0.741	0.44	0.431	13.25	21.12	66430	67810	105870	108080	1.30	8.0	16.3	
3	1.056	5	0.628	0.31	0.310	9.68	15.41	68900	68900	109650	109650	1.20	8.0	15.0	
4	1.072	5	0.633	0.31	0.315	9.91	15.77	70490	69370	112190	110410	1.10	8.0	13.8	
5	0.646	4	0.492	0.20	0.190	6.42	9.81	70820	74550	108140	113830	1.20	8.0	15.0	
6	0.646	4	0.492	0.20	0.190	6.39	9.76	70480	74190	107580	113240	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 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)