

Test Performed by: Dr. M. Irfan Ul Hassan

Assistant Resident Engineer
New Vision, Sec-N,
DHA, Bahawalpur

Client Reference No.: ARE/NVEC/2021, Sec-N/19

Dated: 28-07-2021

SOM Lab Ref: CED/SOM/4763(Page-1/1)

Dated: 06-08-2021

Test: Tensile Test & Elongation Test , Hardness Test & Water Absorption Test

Sample Type: Gaskets Rubber Ring for RCC Pipe (Brand Longman)

Tensile Strength & Elongation Test (ASTM-D-412)

Description	Unit	Before Aging	After aging @100°C.	Standard ASTM
Tensile Strength	Kgs/cm	148.77	144.29	D-412
Elongation at Break	%	560	536	D-412

- HARDNESS EST (AS PER ASTM-D-32240)

S. No.	Sample Type	Before Aging	After aging @100°C.
1	Gaskets Rubber Ring	48.33	51.0

Water Absorption (ASTM-D-2240)

S. No	Sample Type	Remarks
1	Gaskets Rubber Ring	No absorption

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

Major Muhammad Aslam, (Retd) **Test Performed By:** Dr. /Engr. S. Asad Ali Gillani
 Resident Engineer, Penta Square Project, Al-Imam Enterprises (Pvt) Ltd Lahore

Client Reference: Al-Imam/746/PS-1/DHA/LHE/1366

Dated: 08-09-2021

SOM Lab Ref: CED/SOM/4943(Page-1/1)

Dated: 08-09-2021

Test: Tension and Bend Test

Test Specification: ASTM-A 615

Sample Type: Deformed Bar(Kamran & Model Steel)

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 ²	mm ²	kN	kN	MPa	MPa	MPa	MPa	mm	mm	%	
1	1.561	16	15.92	201	199	97.50	127.20	485	490	633	640	35.0	200	17.5	Model
2	1.538	16	15.79	201	196	102.20	131.00	508	522	652	669	32.5	200	16.3	Model
3	0.918	12	12.20	113	117	51.70	74.20	457	443	656	635	40.0	200	20.0	Kamran
4	0.915	12	12.19	113	117	51.50	74.20	455	442	656	637	37.5	200	18.8	Kamran
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BEND TEST:

16mm	Sample bend through 180 degrees Satisfactorily without any crack	Note:- Only Six Samples Received and Tested
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

Taimur Hassan
Resident Engineer, Fort Munro Cadet College, D. G. Khan

Test Performed By: Dr. /Engr. Nauman Khurram

Client Reference: AHQ/74260/2/52/Trg/FMCC

SOM Lab Ref: 4944 (Page-1/1)

Dated: 06-09-2021

Dated: 08-09-2021

Test: Tension Test & Bend Test

Test Specification:

ASTM-A-615

Gauge Length: 8 inch

Sample Type:

Deformed Bar(Moiz 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 ²	in ²	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	0.669	4	0.501	0.20	0.197	6.34	8.84	69920	70990	97460	98940	1.20	8.0	15.0	Moiz
2	0.666	4	0.500	0.20	0.196	6.27	8.79	69130	70540	96900	98880	1.20	8.0	15.0	Moiz
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BEND TEST:

# 4	Sample bend through 180 degrees Satisfactorily without any crack	Note:- 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

Raheel Butt
Lahore

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

Client Reference: Nil

SOM Lab Ref: 4945(Page-1/1)

Dated: 08-09-2021

Dated: 08-09-2021

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 ²	in ²	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	2.676	8	1.000	0.79	0.786	26.35	34.32	73570	73940	95820	96310	1.30	8.0	16.3	
2	2.678	8	1.001	0.79	0.787	24.03	37.21	67080	67330	103870	104270	1.20	8.0	15.0	
3	1.469	6	0.742	0.44	0.432	14.34	19.85	71890	73220	99480	101330	1.40	8.0	17.5	
4	1.471	6	0.742	0.44	0.432	11.85	17.66	59380	60470	88500	90140	1.30	8.0	16.3	
5	1.040	5	0.624	0.31	0.306	11.91	14.80	84710	85810	105300	106680	1.30	8.0	16.3	
6	1.047	5	0.626	0.31	0.308	10.77	13.71	76660	77160	97540	98180	1.20	8.0	15.0	
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BEND TEST:

# 8	Sample bend through 180 degrees Satisfactorily without any crack	Note:- 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

Tanveer Afzal

Test Performed By:

Dr. /Engr. S. Asad Ali Gillani

Senior Manager Civil, HNR Cpmpany Private Ltd. 19.5 KM Rauwind Road, Lahore

Client Reference: HNR/PRO/REF-II/2021/02

SOM Lab Ref: 4946(Page-1/1)

Dated: 08-09-2021

Dated: 08-09-2021

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 ²	in ²	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	2.565	8	0.980	0.79	0.754	25.20	34.56	70350	73710	96470	101080	1.20	8.0	15.0	
2	2.566	8	0.980	0.79	0.754	25.05	34.71	69920	73260	96900	101530	1.20	8.0	15.0	
3	1.488	6	0.746	0.44	0.437	16.23	19.93	81340	81900	99890	100580	0.90	8.0	11.3	
4	1.496	6	0.748	0.44	0.440	16.74	20.23	83900	83900	101420	101420	0.90	8.0	11.3	
5	0.577	4	0.465	0.20	0.170	5.17	6.88	56990	67050	75880	89270	1.40	8.0	17.5	
6	0.587	4	0.469	0.20	0.173	4.91	6.63	54180	62640	73070	84470	1.50	8.0	18.8	
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BEND TEST:

# 8	Sample bend through 180 degrees Satisfactorily without any crack	Note:- 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