



STRUCTURAL ENGINEERING DIVISION
Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

Ref: CED/TFL/02/37898
2022

Dated: 16-02-

Dated of Test: 22-02-2022

To
Resident Engineer
NESPAK
Infrastructure Development of Quaid-e-Azam Business Park on Motorway M-2,
District Sheikhpura

Subject: **TESTING OF R.C.C. PIPE [ASTM-C76 - 08a]**

Reference to your letter No. 4163/11/MY/01/130, dated 11.01.2022 on the subject cited above. Two R.C.C. Pipes as received by us have been tested. The results are tabulated as under.

Sr. No	Nominal Size	Total Length	Loaded Length	External Diameter	Internal Diameter	Wall Thickness	Proof load	Ultimate Load	Proof Stress	Ultimate Stress
	(inch)	(foot)	(foot)	(inch)	(inch)	(inch)	(kg)	(kg)	Pound/Linear foot/foot	Pound/Linear foot/foot
1	15	7.76	7.28	19.61	14.98	2.31	14300	16800	3468	4075
2	15	7.80	7.35	19.69	15.12	2.28	12300	16600	2928	3952

Witness by M. Zain-ul-Abadeen (M.E. NESPAK)

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

- 1- You can See your reports On Internet in the following web site
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- 2- The above results pertain to sample /samples supplied to this laboratory.
- 3- Sealed sample / Unsealed sample / Marked sample/Signed Samples



STRUCTURAL ENGINEERING DIVISION
Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

Ref: CED/TFL/02/37899

Dated: 16-02-2022

Dated of Test: 22-02-2022

To
Development Manager
Iqbal Garden Housing Scheme, KSK
(High Rise Construction Company)

Subject: **TESTING OF R.C.C. PIPE [ASTM-C76 - 08a]**

Reference to your letter No. P&D/22/003, dated 16.02.2022 on the subject cited above. Three R.C.C. Pipes as received by us have been tested. The results are tabulated as under.

Sr. No	Nominal Size	Total Length	Loaded Length	External Diameter	Internal Diameter	Wall Thickness	Proof load	Ultimate Load	Proof Stress	Ultimate Stress
	(inch)	(foot)	(foot)	(inch)	(inch)	(inch)	(kg)	(kg)	Pound/Linear foot/foot	Pound/Linear foot/foot
1	12	7.76	7.30	16.22	12.10	2.06	10500	16600	3144	4971
2	15	7.79	7.29	19.80	15.21	2.30	11200	14200	2671	3386
3	18	7.80	7.36	23.23	18.02	2.60	9800	13000	1955	2593

I/C Testing Laboratoires
UET Lahore, Pakistan.

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STRUCTURAL ENGINEERING DIVISION
Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,
 Sub Divisional Officer
 Highway Sub Division
 Shahpur
 (Construction of Road from Chohal to Dalawar via Kukrani Nahar Length 13.00 km in District Sargodha)
 Reference # CED/TFL **918** (Engr. Amina Rajput) Dated: 21-02-2022
 Reference of the request letter # 489/SP Dated: 07-02-2022

Tension Test Report (Page -1/1)

Date of Test 22-02-2022
 Gauge length 8 inches
 Description Deformed Steel Bar Tensile Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size (inch)		Area (in ²)		Yield load (kg)	Breaking Load (kg)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
		Nominal	Actual	Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.361	3/8	0.368	0.11	0.106	2900	4100	58200	60240	82200	85200	1.60	20.0	
2	0.363	3/8	0.369	0.11	0.107	2900	4100	58200	59860	82200	84700	1.60	20.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile test														
Bend Test														

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

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STRUCTURAL ENGINEERING DIVISION
Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,
 Sub Divisional Officer
 Highway Sub Division
 Bhalwal
 (Construction of Road from Ghullapur Banglow to Pull Chak No. 68/SB (Section 0.00 to 8.00)
 Length 8.00 km (Phase –I 0.00 to 7.55 km) in District Sargodha)
 Reference # CED/TFL 919 (Engr. Amina Rajput) Dated: 21-02-2022
 Reference of the request letter # 67/SB Dated: 07-02-2022

Tension Test Report (Page -1/1)

Date of Test 22-02-2022
 Gauge length 8 inches
 Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size (inch)		Area (in ²)		Yield load (kg)	Breaking Load (kg)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
		Nominal	Actual	Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.369	3/8	0.372	0.11	0.109	3000	4200	60200	60940	84200	85400	1.60	20.0	
2	0.369	3/8	0.372	0.11	0.109	3000	4200	60200	60930	84200	85400	1.70	21.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
3/8" Dia Bar Bend Test Through 180° is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

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STRUCTURAL ENGINEERING DIVISION
Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,
 Resident Engineer
 NESPAK
 Dualization of Road from Karam Dad Qureshi to Qasba Gujrat Length 12 km in District
 Muzaffargarh

Reference # CED/TFL **920** (Engr. Amina Rajput)
 Reference of the request letter # SA-467C/HA/01/06

Dated: 21-02-2022
 Dated: 26-01-2022

Tension Test Report (Page -1/2)

Date of Test 22-02-2022
 Gauge length 8 inches
 Description Deformed Steel Bar Tensile Test as per ASTM-A615

Sr. No.	Weight	Diameter/ Size		Area (in ²)		Yield load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
	(lbs/ft)	Nominal (#)	Actual (inch)	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)		
1	0.391	3	0.382	0.11	0.115	3500	5400	70200	67150	108200	103600	1.30	16.3	FF Steel
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only one sample for tensile test														
Bend Test														

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

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STRUCTURAL ENGINEERING DIVISION
Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,
 Resident Engineer
 NESPAK
 Dualization of Road from Karam Dad Qureshi to Qasba Gujrat Length 12 km in District
 Muzaffargarh

Reference # CED/TFL **920** (Engr. Amina Rajput)
 Reference of the request letter # SA-467C/HA/01/10

Dated: 21-02-2022
 Dated: 07-02-2022

Tension Test Report (Page -2/2)

Date of Test 22-02-2022
 Gauge length 8 inches
 Description Deformed Steel Bar Tensile Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size		Area (in ²)		Yield load (kg)	Breaking Load (kg)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
		Nominal (#)	Actual (inch)	Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	4.128	10	1.243	1.27	1.213	36400	53200	63200	66120	92400	96700	1.50	18.8	FF Steel
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only one sample for tensile test														
Bend Test														

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

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STRUCTURAL ENGINEERING DIVISION
Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,
 Executive Engineer
 Highway Division, Hafizabad
 Dualization of Road from Gujranwala to M-2 Interchange at Kot Sarwar via Hafizabad km 6.20 to km 80.45 (Section km No. 40.20 – 79.39, Length = 39.15 kms) (Section No. 3 (km 40.20 to 55.40 L= 15.20km) in District bHafizabad)
 Reference # CED/TFL 922 (Engr. Amina Rajput) Dated: 21-02-2022
 Reference of the request letter # 113/MCB Dated: 22-01-2022

Tension Test Report (Page -1/2)

Date of Test 22-02-2022
 Gauge length 8 inches
 Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size		Area (in ²)		Yield load (kg)	Breaking Load (kg)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
		Nominal (#)	Actual (inch)	Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.377	3	0.376	0.11	0.111	3600	5400	72200	71590	108200	107400	0.90	11.3	
2	0.377	3	0.376	0.11	0.111	3500	5300	70200	69610	106200	105500	1.00	12.5	
3	0.373	3	0.374	0.11	0.110	3500	5300	70200	70270	106200	106500	1.00	12.5	
4	4.315	10	1.271	1.27	1.268	39200	55600	68100	68120	96500	96700	1.60	20.0	
5	4.316	10	1.271	1.27	1.269	41600	55400	72200	72280	96200	96300	1.60	20.0	
6	4.316	10	1.271	1.27	1.269	42200	55800	73300	73310	96900	97000	1.60	20.0	
Note: only six samples for tensile and two samples for bend test														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														
#10 Bar Bend Test Through 180° is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

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STRUCTURAL ENGINEERING DIVISION
Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,
 Executive Engineer
 Highway Division, Hafizabad
 Dualization of Road from Gujranwala to M-2 Interchange at Kot Sarwar via Hafizabad km 6.20 to km 80.45 (Section km No. 40.20 – 79.39, Length = 39.15 kms) (Section No. 3 (km 40.20 to 55.40 L= 15.20km) in District bHafizabad)
 Reference # CED/TFL 922 (Engr. Amina Rajput) Dated: 21-02-2022
 Reference of the request letter # 85/MCB Dated: 15-01-2022

Tension Test Report (Page -2/2)

Date of Test 22-02-2022
 Gauge length 8 inches
 Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size		Area (in ²)		Yield load (kg)	Breaking Load (kg)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
		Nominal (#)	Actual (inch)	Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.377	3	0.376	0.11	0.111	3300	5200	66200	65570	104200	103400	1.30	16.3	
2	0.373	3	0.374	0.11	0.110	3400	5300	68200	68260	106200	106500	1.20	15.0	
3	0.373	3	0.374	0.11	0.110	3400	5200	68200	68260	104200	104400	1.10	13.8	
4	4.304	10	1.269	1.27	1.265	40400	55800	70200	70390	96900	97300	1.70	21.3	
5	4.315	10	1.271	1.27	1.268	43000	56000	74700	74730	97200	97400	1.90	23.8	
6	4.314	10	1.271	1.27	1.268	42400	55800	73600	73710	96900	97000	1.90	23.8	
Note: only six samples for tensile and two samples for bend test														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														
#10 Bar Bend Test Through 180° is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

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Pakistan. Ph: 92-42-99029202

To,
M/S Ittefaq Building Solutions Pvt Ltd
Lahore
(Kohinoor Textile Mill Raiwind, Lahore (Weaving Unit Extension) Including)

Reference # CED/TFL 923 (Engr. Amina Rajput)
Reference of the request letter # IBS/KTML/ST 01

Dated: 21-02-2022
Dated: 21-02-2022

Tension Test Report (Page -1/1)

Date of Test 22-02-2022
Gauge length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size (mm)		Area (in ²)		Yield load (kg)	Breaking Load (kg)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
		Nominal	Actual	Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.415	10	10.01	0.12	0.122	3400	5000	62464	61400	91858	90300	1.60	20.0	
2	0.413	10	9.98	0.12	0.121	3300	4900	60627	59950	90021	89100	1.60	20.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
10mm Dia Bar Bend Test Through 180° is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

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STRUCTURAL ENGINEERING DIVISION
Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,
 Project Manager
 Banu Mukhtar (Pvt) Ltd
 Roomi Fabric Ltd, Quid-e-Azam Business Park, Shiekhupura

Reference # CED/TFL 924 (Engr. Amina Rajput)
 Reference of the request letter # Nil

Dated: 21-02-2022
 Dated: 21-02-2022

Tension Test Report (Page -1/1)

Date of Test 22-02-2022
 Gauge length 8 inches
 Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size (mm)		Area (in ²)		Yield load (kg)	Breaking Load (kg)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
		Nominal	Actual	Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.423	10	10.11	0.12	0.124	4200	5100	77161	74450	93696	90400	1.30	16.3	Amreli Steel
2	0.413	10	9.99	0.12	0.122	4500	5800	82673	81630	106556	105300	0.80	10.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
10mm Dia Bar Bend Test Through 180° is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

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STRUCTURAL ENGINEERING DIVISION
Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,
M/S 7 Star Engineering Kinetics (Pvt) Ltd
Lahore

Reference # CED/TFL 932 (Engr. Amina Rajput)
Reference of the request letter # Nil

Dated: 22-02-2022

Dated: 22-02-2022

Tension Test Report (Page – 1/1)

Date of Test 22-02-2022
Gauge length 2 inches
Description Square Bar Tensile Test

Sr. No.	Designation	Size of Strip	X Section Area	Yield load	Breaking Load	Yield Stress	Ultimate Stress	Elongation	% Elongation	Remarks
	-----	(mm)	(mm ²)	(kg)	(kg)	(MPa)	(MPa)	(in)		
1	Square Bar	8.90x9.25	82.33	5600	8600	667	1025	0.40	20.00	Leaf Spring
2	Square Bar	9.25x9.60	88.80	6600	9400	729	1038	0.40	20.00	Rail Track
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
Only Two Samples for Tensile Test										
Bend Test										

I/C Testing Laboratoires
UET Lahore, Pakistan.

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