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/12/4432 Dated: 29-12-2023

Dated of Test: 08-01-2024

To

Assistant Resident Engineer
Package-III (PCP) Jhang
MM Pakistan (Pvt) Ltd
(Rehabilitation of Sewerage System in Jhang City)

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

Reference to your letter No. Jhang/PKG03/84, dated 23.12.2023 on the subject cited above. Two R.C.C. Pipe as received by us has 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	27	7.92	7.61	33.35	26.99	3.18	9470	13730	1219	1768
2	36	7.99	7.63	44.17	35.73	4.22	11600	15860	1126	1539

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

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http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing_reports

2. The above results pertain to sample /samples supplied to this laboratory.

3- Sealed sample / Unsealed sample / Marked sample/Signed Samples

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To,

Resident Engineer
NESPAK
Construction of Dual Carriageway from GT Road (Benzir Chowk) to Lahore-Sialkot Motorway (Wanndo Interchange) l = 15.20 km, District Gujranwala.

Reference # CED/TFL **4480** (Dr. Rizwan Azam) Dated: 10-01-2024
Reference of the request letter # 103/EW/GRW/ARL/Lab/42 Dated: 08-01-2024

Tension Test Report (Page -1/1)

Date of Test 11-01-2024
Gauge length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight	Diameter/ Size (mm)		Area (in^2)		Yield load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
	(lbs/ft)	Nominal	Actual	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)		
1	0.366	10	9.40	0.12	0.108	4000	4890	73487	81880	89837	100100	1.30	16.3	Mughal Steel
2	0.366	10	9.41	0.12	0.108	4030	4940	74038	82470	90756	101100	1.20	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
10mm Dia Bar Bend Test Through 180º is Satisfactory														

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To,

Resident Engineer
NESPAK
Construction of Dual Carriageway from GT Road (Benzir Chowk) to Lahore-Sialkot Motorway (Wanndo Interchange) l = 15.20 km, District Gujranwala.

Reference # CED/TFL **4480** (Dr. Rizwan Azam) Dated: 10-01-2024
Reference of the request letter # 103/EW/GRW/ARL/Lab/42 Dated: 08-01-2024

Tension Test Report (Page -2/2)

Date of Test 11-01-2024
Gauge length 8 inches
Description Plain Steel Bar Tensile Test

Sr. No.	Weight	Diameter/ Size (mm)		Area (mm^2)		Yield load	Breaking Load	Yield Stress (MPa)	Ultimate Stress (MPa)	Elongation	% Elongation	Remarks
	(kg/m)	Nominal	Actual	Nominal	Actual	(kg)	(kg)	Actual	Actual	(inch)		
1	8.883	38	37.96	------	1131.7	54000	81600	468	707	1.70	21.3	Nomee Steel
2	9.109	38	38.44	-------	1160.4	56800	78400	480	663	1.80	22.5	
-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	

Note: only two samples for tensile and one sample for bend test

Bend Test

38mm Dia Bar Bend Test Through 180º is Satisfactory

I/C Testing Laboratoires
UET Lahore, Pakistan.

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Pakistan. Ph: 92-42-99029202

To,

M/S AK Smelters & Re-Rollers (Private) Limited.

Reference # CED/TFL **4481** (Dr. Rizwan Azam) Dated: 10-01-2024
Reference of the request letter # Nil Dated: 10-01-2024

Tension Test Report (Page -1/1)

Date of Test 11-01-2024
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	0.364	3	0.369	0.11	0.107	3820	5220	76600	78680	104600	107600	1.10	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only one sample for tensile test														
Bend Test														

I/C Testing Laboratoires
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To,

Resident Engineer,
Orbit Developers Private Limited
The Spring Atrium, Gulberg Lahore

Reference # CED/TFL **4482** (Dr. Rizwan Azam) Dated: 11-01-2024
Reference of the request letter# NIL Dated: 11-01-2024

Tension Test Report (Page -1/1)

Date of Test 11-01-2024
Gauge length 8 inches
Description Deformed Steel Bar Tensile and Bend 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	0.375	3	0.375	0.11	0.110	3870	5860	77600	77340	117500	117100	1.30	16.3	
2	0.376	3	0.375	0.11	0.111	4150	6170	83200	82680	123700	123000	1.00	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
#3 Bar Bend Test Through 180º is Satisfactory														

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