



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/08/33718

Dated: 20-08-19

Date of Test : 27-08-2019

To
Project Engineer (GMP)
Ghosia Builders (Pvt) Ltd
G-Mangolia Park, Gujranwala

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

Reference to your letter No. Nil, dated 19.08.2019 on the subject cited above. One 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
	(mm)	(m)	(m)	(mm)	(mm)	(mm)	(kg)	(kg)	N/m/mm	N/m/mm
1	762.0 (30")	2.462	2.335	934.00	758.66	87.67	9970	17890	55.21	99.07

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

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



STRUCTURAL ENGINEERING DIVISION
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To,
 Resident Engineer
 MM Pakistan (Pvt) Ltd
 Peshawar Sustainable Bus Rapid Transit Corridor Project (PSBRT)
 Chamkani Bus Depot, Park and Ride, Trans Peshawar office and BRTControl Center

Reference # CED/TFL **33721** (Dr. Waseem Abbas)
 Reference of the request letter # MMP/BRT/PSH/SN-324

Dated: 20-08-2019
 Dated: 02-08-2019

Tension Test Report (Page – 1/1)

Date of Test 27-08-2019
 Gauge length 2 inches
 Description Aluminum Strip Tensile Test

Sr. No.	Designation	Size of Strip	X Section Area	Yield load	Breaking Load	Yield Stress	Ultimate Stress	Elongation	% Elongation	Remarks
1	Wall Joint	27.20x1.60	43.52	9.66	13.00	221.97	298.71	0.20	10.00	
2		27.20x1.60	43.52	9.66	12.20	221.97	280.33	0.15	7.50	
3	Ex. Joint Floor	13.40x2.00	26.80	6.03	6.50	225.00	242.54	0.30	15.00	
4		13.40x2.00	26.80	6.27	6.70	233.96	250.00	0.25	12.50	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
Only Four Samples for Tensile Test										
Bend Test										

I/C Testing Laboratoires
UET Lahore, Pakistan.

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To,
 Chief Resident Engineer, Package-1
 NESPAK
 Construction/ Improvement & Rehabilitation of at Grade Works along Lahore Orange Line
 Metro Train Corridor (Section-III) from Bohar Wala Chowk to PIA Plantarium

Reference # CED/TFL **33738** (Dr. Waseem Abbas)
 Reference of the request letter # 4042/13/FAM/steel-089

Dated: 26-08-2019
 Dated: 19-08-2019

Tension Test Report (Page -1/2)

Date of Test 27-08-2019
 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	0.382	3	0.378	0.11	0.112	3800	5600	76200	74680	112300	110100	1.00	12.5	Saeed
2	0.311	3	0.341	0.11	0.092	3400	5500	68200	81850	110200	132400	0.90	11.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

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Department of Civil Engineering
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To,
 Chief Resident Engineer, Package-1
 NESPAK
 Construction/ Improvement & Rehabilitation of at Grade Works along Lahore Orange Line
 Metro Train Corridor (Section-III) from Bohar Wala Chowk to PIA Plantarium

Reference # CED/TFL **33738** (Dr. Waseem Abbas)
 Reference of the request letter # 4042/13/FAM/steel-090

Dated: 26-08-2019
 Dated: 19-08-2019

Tension Test Report (Page -2/2)

Date of Test 27-08-2019
 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	0.378	3	0.376	0.11	0.111	3200	5500	64200	63530	110200	109200	1.00	12.5	Saeed
2	0.374	3	0.374	0.11	0.110	3300	5500	66200	66160	110200	110300	0.90	11.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

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To,
 PMCS Manager
 MAK Associates
 PAF Skyview Golf and Country Club, Bedian Road, Lahore

Reference # CED/TFL **33739** (Dr. Waseem Abbas)
 Reference of the request letter # MAK/PAF/SV-GL/TB-028

Dated: 26-08-2019
 Dated: 20-08-2019

Tension Test Report (Page -1/1)

Date of Test 27-08-2019
 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	0.373	3	0.374	0.11	0.110	3200	4900	64200	64360	98200	98600	1.40	17.5	
2	0.412	3	0.393	0.11	0.121	3500	5300	70200	63750	106200	96600	1.30	16.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

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To,
 Engr. M. Kamran Rafi
 Head Civil North (Zone A & B)
 National Bank of Pakistan
 Engineering Division (North), Logistic Support Group
 26-Mclagon Road, RHQ Building, Lahore
 Reference # CED/TFL **33740, 741** (Dr. Waseem Abbas)
 Reference of the request letter # Engg: 2967

Dated: 26-08-2019
 Dated: 26-08-2019

Tension Test Report (Page -1/1)

Date of Test 27-08-2019
 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	0.392	3/8	0.383	0.11	0.115	3300	4900	66200	63200	98200	93900	0.90	11.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only one sample 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.

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To,
M.E
AS Enterprises
(Style Textile Mill)(AA Associates)(Afco)

Reference # CED/TFL 33742 (Dr. Waseem Abbas)
Reference of the request letter # USD/ASE/16

Dated: 26-08-2019
Dated: 25-08-2019

Tension Test Report (Page -1/1)

Date of Test 27-08-2019
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	0.419	10	10.06	0.12	0.123	3400	4800	62464	60810	88184	85900	1.70	21.3	
2	0.420	10	10.07	0.12	0.123	3300	4800	60627	58900	88184	85700	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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To,
M/S Associated Technologies (Pvt) Ltd
Model Town, Lahore
(CM Pak Rollout Project Site ID : 42641 & 42930)

Reference # CED/TFL **33744** (Dr. Waseem Abbas)
Reference of the request letter # Nil

Dated: 26-08-2019
Dated: 25-08-2019

Tension Test Report (Page -1/1)

Date of Test 27-08-2019
Gauge length 8 inches
Description Deformed Steel Bar Tensile 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	0.382	10	9.60	0.12	0.112	3800	5200	69812	74630	95533	102200	1.00	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only one samples for tensile test														
Bend Test														

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To,
 Additional Director Development
 DHA Phase-XI (Rahbar)
 Construction of DHA Girls School at Block- 'B' Sector-I, DHA Phase-XI (Rahbar)

Reference # CED/TFL **33745** (Dr. Safer Abbas) Dated: 27-08-2019
 Reference of the request letter # 700/3/Girls School/Ph-XI/Projs/2539 Dated: 26-08-2019

Tension Test Report (Page -1/1)

Date of Test 27-08-2019
 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	0.375	3/8	0.375	0.11	0.110	3100	4800	62200	62000	96200	96000	1.00	12.5	Ittefaq Steel
2	0.374	3/8	0.374	0.11	0.110	3100	4800	62200	62070	96200	96200	1.00	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	

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
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