

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

Ref: <u>CED/TFL/12/37558, 565</u> 2021 Dated of Test: 24-12-2021

To Executive Engineer Road Construction Division Gujranwala (Dualization of Road from Gujranwala to M-2 Interchange at Kot Sarwer via Hafizabad Section No. 1 km no. 6.20 to km no. 23.20 L= 17 km in District Gujranwala)

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

Reference to your letter No. 1064/G-1, dated 20.12.2021 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
	(inch)	(foot)	(foot)	(inch)	(inch)	(inch)	(kg)	(kg)	Pound/Linear foot/foot	Pound/Linear foot/foot
1	36	8.03	7.65	44.02	36.12	3.95	16590	25330	1587	2424

Witness by Manohar Lal (Chief Engineer NESPAK) & Junaid Akram (SDO Highway Division 1, Gujranwala)

I/C Testing Laboratoires UET Lahore, Pakistan.

Note:

1- You can See your reports On Internet in the following web site 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

Dated: 21-12-



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

To, Resident Engineer Umar Munshi Associates

Construction of Grade Separation Facility at Intersection of 7th Avenue with Khayaban-e-Suhrwardy & Sri Nagar Highway and Underpass along Khayaban-e-Suhrwardy, Islamabad (United Wire Industries (Pvt) Limited)

Reference # CED/TFL 37569 (Dr. Waseem Abbass)Dated: 2Reference of the request letter # 4250/STNBP/RE/KU/229I

Dated: 22-12-2021 Dated: 05-11-2021

# **Tension Test Report** (Page -1/2)

Date of Test24-12-2021Gauge length640 mmDescriptionSteel Strand Tensile Test as per ASTM A-416-94a

Sr. No.	Nominal Diameter	Nominal Weight	Measured weight	Yield st clause	trength e (6.3)	Breaking strength clause (6.2)		Breaking strength clause (6.2)		Elongation	rks / Coil No.
	(mm)	(kg/km)	(kg/km)	(kg)	(kN)	(kg)	(kN)	GPa	%	Rema	
1	12.70 (1/2")	775.0	784.0	17900	175.60	19600	192.28	199	>3.50	23006	
-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	
	Only one sample for Test										

Note:

1. Modulus of Elasticity is based on nominal steel area of the steel strand vide clause 13.3 of ASTM - A416a

2. Load versus percentage strain graphs are attached

I/C Testing Laboratoires UET Lahore, Pakistan.

Note:

1- You can See your reports On Internet in the following web site 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.



Resident Engineer NESPAK Construction of Shatial – Thor Nullah Bypass (Relocation of KKH) Including Link Road to Existing KKH (WMI)

Reference # CED/TFL <u>37569 (Dr. Waseem Abbass)</u> Reference of the request letter # 4250/STNBP/RE/KU/229 Dated: 22-12-2021 Dated: 05-11-2021

Graph (Page - 2/2)



I/C Testing Laboratoires UET Lahore, Pakistan.

- 1- You can See your reports On Internet in the following web site 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



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

To, Resident Engineer – I NESPAK Construction of Sheranwala Flyover, Lahore

Reference # CED/TFL 37578 (Dr. Usman Akmal)Dated: 23-12-2021Reference of the request letter # 3772/SF/103/MWA/04/206Dated: 22-12-2021

# **Tension Test Report** (Page -1/2)

Date of Test24-12-2021Gauge length640 mmDescriptionSteel Strand Tensile Test as per ASTM A-416-94a

Sr. No.	Nominal Diameter	Nominal Weight	Measured weight	Yield st clause	trength e (6.3)	Breaking strength clause (6.2)		Breaking strength clause (6.2)		Elongation	ırks / Coil No.
	(mm)	(kg/km)	(kg/km)	(kg)	(kN)	(kg)	(kN)	GPa	%	Rema	
1	12.70 (1/2")	775.0	775.0	17400	170.69	19500	191.30	199	>3.50	23132	
-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	
	Only one sample for Test										

Witness by Farooq-e-Azam (NESPAK) & Engr. Ishtiaq (M.E HCS)

Note:

1. Modulus of Elasticity is based on nominal steel area of the steel strand vide clause 13.3 of ASTM - A416a

2. Load versus percentage strain graphs are attached

I/C Testing Laboratoires UET Lahore, Pakistan.

Note:

1- You can See your reports On Internet in the following web site 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.



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

To, Resident Engineer – I NESPAK Construction of Sheranwala Flyover, Lahore

Reference # CED/TFL 37578 (Dr. Usman Akmal)	Dated: 23-12-2021
Reference of the request letter # 3772/SF/103/MWA/04/206	Dated: 22-12-2021

Graph (Page – 2/2)



I/C Testing Laboratoires UET Lahore, Pakistan.

Note:

1- You can See your reports On Internet in the following web site 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.



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

To, Sub Divisional Officer Building Sub Division Hafizabad (Establishment of Govt. Associate College for Girls, Kaliki Mandi, Hafizabad)

Reference # CED/TFL <u>37579 (Dr. Usman Akmal)</u> Reference of the request letter # 741/HZ Dated: 23-12-2021 Dated: 27-11-2021

# Tension Test Report(Page -1/1)Date of Test24-12-2021Gauge length8 inchesDescriptionDeformed Steel Bar Tensile Test as per ASTM-A615

ir. No.	Weight	Dian Si (in	neter/ ze ch)	Aı (iı	rea n²)	Yield load	Breaking Load	Yield (p	Stress si)	Ultimate Stress (psi)		Ultimate Stress (psi)		Elongation	longation	emarks
S	(lbs/ft)	Nominal	Actual	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)	H %	Re		
1	0.373	3/8	0.374	0.11	0.110	3300	4600	66200	66290	92200	92400	1.20	15.0			
2	0.371	3/8	0.372	0.11	0.109	3300	4600	66200	66770	92200	93100	1.30	16.3			
-	-	-	-	I	-	-	-	-	-	-	-	-	-			
-	-	-	-	-	-	-	-	-	-	-	-	-	-			
-	-	-	-	-	-	-	-	-	-	-	-	-	-			
-	-	-	-	-	-	-	-	-	-	-	-	-	-			
					Not	e: only t	wo samp	les for ter	nsile test			T				
	Bend Test															

I/C Testing Laboratoires UET Lahore, Pakistan.

- 1- You can See your reports On Internet in the following web site 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

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

To, M/S Sui Northern Gas Pipelines Limited Lahore (Construction of Store Shed at Regional Distribution Office Lahore)

Reference # CED/TFL 37580 (	Dr. Usman Akmal
rence of the request letter	# CC/S.Shed/Lhr

#### Dated: 23-12-2021 Dated: 22-12-2021

# **Tension Test Report** (Page -1/1)

Date of Test Gauge length Description 24-12-20218 inchesDeformed Steel Bar Tensile and Bend Test as per ASTM-A615

r. No.	Weight	Dian Si (in	neter/ ize ch)	Aı (iı	rea n²)	Yield load	Breaking Load	Yield (p	Stress si)	Ultimate Stress (psi)		Ultimate Stress (psi)		Elongation	longation	emarks
S	(lbs/ft)	Nominal	Actual	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)	% E	Re		
1	0.372	3/8	0.373	0.11	0.109	3600	5000	72200	72590	100200	100900	1.10	13.8			
2	0.369	3/8	0.372	0.11	0.109	3600	5000	72200	73070	100200	101500	1.00	12.5			
-	-	-	-	-	-	-	-	-	-	-	-	-	-			
-	-	-	-	-	-	-	-	-	-	-	-	-	-			
-	-	-	-	-	-	-	-	-	-	-	-	-	-			
-	-	-	-	-	-	-	-	-	-	-	-	-	-			
			No	ote: onl	y two sa	amples fo	or tensile	and one	samples	for bend	test	1				
	Bend Test															
3/8	3/8" Dia Bar Bend Test Through 180° is Satisfactory															

#### I/C Testing Laboratoires UET Lahore, Pakistan.

Note:

1- You can See your reports On Internet in the following web site 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.



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

To, M/S PAF Falcon Complex Gulberg III, Lahore (BBC)

Reference # CED/TFL <u>37582 (Dr. Usman Akmal)</u> Reference of the request letter # Nil Dated: 23-12-2021 Dated: 23-12-2021

# Tension Test Report (Page -1/1)Date of Test24-12-2021Gauge length8 inchesDescriptionDeformed Steel Bar Tensile and Bend Test as per ASTM-A615

ir. No.	Sr. No. Weight		Diameter/ Size (inch)		Diameter/ Size (inch)		Diameter/ Size (inch)		rea n²)	Yield load	Breaking Load	Yield (p	Stress si)	Ultimat (p	te Stress si)	Elongation	longation	emarks
	(lbs/ft)	Nominal	Actual	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)	% E	R				
1	0.370	3/8	0.372	0.11	0.109	3800	5600	76200	76980	112300	113500	1.10	13.8					
-	-	-	-	-	-	-	-	-	-	-	-	-	-					
-	-	I	-	I	-	-	-	-	-	-	-	-	-					
-	-	I	-	I	-	-	-	-	-	-	-	-	-					
-	-	-	-	-	-	-	-	-	-	-	-	-	-					
-	-	-	-	-	-	-	-	-	-	-	-	-	-					
			N	ote: on	ly one s	sample fo	or tensile	and one	sample f	or bend t	est							
Bend Test																		
3/8	3/8" Dia Bar Bend Test Through 180° is Satisfactory																	

I/C Testing Laboratoires UET Lahore, Pakistan.

Note:

1- You can See your reports On Internet in the following web site 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.



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

To, Executive Engineer Assistant Garrison Engineer (Army) Pattoki (Construction of Over Head Water Tank with Tube Well at AAD Pattoki)

Reference # CED/TFL <u>37585 (Dr. Usman Akmal)</u> Reference of the request letter # 600-TR/19/E6 Dated: 23-12-2021 Dated: 06-12-2021

# Tension Test Report(Page -1/1)Date of Test24-12-2021Gauge length8 inchesDescriptionDeformed Steel Bar Tensile Test as per ASTM-A615

ir. No.	Weight	Dian Si (in	neter/ ze ch)	Aı (iı	rea 1 <sup>2</sup> )	Yield load	Breaking Load	Yield (p	Stress si)	Ultimat (p	e Stress si)	Elongation	longation	emarks
	(lbs/ft)	Nominal	Actual	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)	<b>3 %</b>	R
1	0.347	3/8	0.360	0.11	0.102	3200	4800	64200	69180	96200	103800	1.00	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
					No	te: only o	one samp	le for ten	sile test					
	Bend Test													

I/C Testing Laboratoires UET Lahore, Pakistan.

- 1- You can See your reports On Internet in the following web site 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

# THERE RANGE THE RANGE

# 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

Umar Munshi Associates

Construction of Grade Separation Facility at Intersection of 7th Avenue with Khayaban-e-Suhrwardy & Sri Nagar Highway and Underpass along Khayaban-e-Suhrwardy, Islamabad (United Wire Industries (Pvt) Limited)

Reference # CED/TFL 37586 (Dr. Waseem Abbass)	Dated: 23-12-2021
Reference of the request letter # 7 <sup>th</sup> Ave/Lab-01/001/028	Dated: 23-12-2021

# **Tension Test Report** (Page -1/4)

Date of Test24-12-2021Gauge length640 mmDescriptionSteel Strand Tensile Test as per ASTM A-416-94a

Sr. No.	Nominal Diameter	Nominal Weight	Measured weight	Yield st clause	trength e (6.3)	Breaking strength clause (6.2) Elasticity Clause (6.2)		Elongation	rks / Coil No.	
	(mm)	(kg/km)	(kg/km)	(kg)	(kN)	(kg)	(kN)	GPa	%	Rema
1	12.70 (1/2")	775.0	772	17500	171.68	19400	190.31	199	>3.50	XX
2	12.70 (1/2")	775.0	772	17500	171.68	19500	191.30	198	>3.50	XX
3	12.70 (1/2")	775.0	776	17400	170.69	19700	193.26	199	>3.50	XX
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
	Only three samples for Test									

Note:

1. Modulus of Elasticity is based on nominal steel area of the steel strand vide clause 13.3 of ASTM - A416a

2. Load versus percentage strain graphs are attached

I/C Testing Laboratoires UET Lahore, Pakistan.

Note:

1- You can See your reports On Internet in the following web site 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.



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

To, Resident Engineer

Umar Munshi Associates Construction of Grade Separation Fa

Construction of Grade Separation Facility at Intersection of 7th Avenue with Khayaban-e-Suhrwardy & Sri Nagar Highway and Underpass along Khayaban-e-Suhrwardy, Islamabad (United Wire Industries (Pvt) Limited)

Reference # CED/TFL <u>37586 (Dr. Waseem Abbass)</u>	Dated: 23-12-2021
Reference of the request letter # 7 <sup>th</sup> Ave/Lab-01/001/028	Dated: 23-12-2021

## Graph (Page – 2/4)



I/C Testing Laboratoires UET Lahore, Pakistan.

- 1- You can See your reports On Internet in the following web site 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



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

To, **Resident Engineer** Umar Munshi Associates

Construction of Grade Separation Facility at Intersection of 7th Avenue with Khayaban-e-

Suhrwardy & Sri Nagar Highway and Underpass along Khayaban-e-Suhrwardy, Islamabad (United Wire Industries (Pvt) Limited)

Reference # CED/TFL <u>37586 (Dr. Waseem Abbass)</u>	Dated: 23-12-2021
Reference of the request letter # 7 <sup>th</sup> Ave/Lab-01/001/028	Dated: 23-12-2021





# Stress Strain Relation -- Specimen No. W 2

I/C Testing Laboratoires UET Lahore, Pakistan.

#### Note:

You can See your reports On Internet in the following web site 1http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing\_reports

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



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

To, **Resident Engineer** 

Umar Munshi Associates

Construction of Grade Separation Facility at Intersection of 7th Avenue with Khayaban-e-Suhrwardy & Sri Nagar Highway and Underpass along Khayaban-e-Suhrwardy, Islamabad (United Wire Industries (Pvt) Limited)

Reference # CED/TFL 37586 (Dr. Waseem Abbass) Dated: 23-12-2021 Reference of the request letter # 7<sup>th</sup>Ave/Lab-01/001/028 Dated: 23-12-2021





Stress Strain Relation -- Specimen No. W 3

I/C Testing Laboratoires UET Lahore, Pakistan.

- You can See your reports On Internet in the following web site 1http://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



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

To, Project Manager State Grid Design, Supply, Istallation, Testing & Commissioning of 500kV/D/C Transmission Line Nokhar S/S – Lahore North S/S- Lahore HVDC Switching / Converter Stattion (Kamran Steel (Sharqpur Warehouse) Reference # CED/TFL <u>37587 (Dr. Asad Ali)</u> Dated: 23-12-2021 Reference of the request letter # CET/ADB-301A//SEC-II/UET-21-229 Dated: 23-12-2021

# **Tension Test Report** (Page -1/2)

Date of Test Gauge length Description

est 24-12-2021

e length 8 inches

Deformed Steel Bar Tensile and Ben;d Test as per ASTM-A615

Sr. No.	Weight	Diam Si	ieter/ ze	Aı (iı	rea n <sup>2</sup> )	Yield load	Breaking Load	Yield (p	Stress si)	Ultimat (p	e Stress si)	Elongation	longation	emarks
	(lbs/ft)	Nominal (#)	Actual (inch)	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)	% E	R
1	0.364	3	0.369	0.11	0.107	3410	4710	68400	70250	94400	97100	1.20	15.0	
2	0.364	3	0.369	0.11	0.107	3360	4760	67400	69230	95400	98100	1.00	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
			No	te: onl	y two sa	amples fo	or tensile	and two	samples	for bend	test			
							Bend T	est						
#3	Dia Bar	Bend T	est Thr	ough 18	30° is Sa	tisfactory	/							
#3	Dia Bar	Bend T	est Thre	ough 18	30° is Sa	tisfactory	7							

Witness by Umair Khalid (NESPAK)

#### I/C Testing Laboratoires UET Lahore, Pakistan.

Note:

1- You can See your reports On Internet in the following web site 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.

# NINERAL CONTRACTOR

# 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 State Grid Design, Supply, Istallation, Testing & Commissioning of 500kV/D/C Transmission Line Nokhar S/S – Lahore North S/S- Lahore HVDC Switching / Converter Stattion (Kamran Steel (Noshehra Virka Warehouse) Reference # CED/TFL <u>37587 (Dr. Asad Ali)</u> Dated: 23-12-2021 Reference of the request letter # CET/ADB-301A//SEC-I/UET-21-228 Dated: 23-12-2021 **Tension Test Report** (Page -2/2)

Date of Test Gauge length Description 24-12-2021

8 inches

Deformed Steel Bar Tensile and Ben;d Test as per ASTM-A615

Jr. No.	Weight	Dian Si	neter/ ze	Area (in <sup>2</sup> )		Yield load Breaking Load		Yield Stress (psi)		Ultimate Stress (psi)		Elongation	longation	emarks
	(lbs/ft)	Nominal (#)	Actual (inch)	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)	% E	R
1	0.412	3	0.393	0.11	0.121	4080	5710	81800	74280	114500	104000	1.10	13.8	
2	0.413	3	0.393	0.11	0.121	4180	5710	83800	75840	114500	103600	1.10	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		r	No	ote: onl	y two s	amples fo	or tensile	and two	samples	for bend	test	r		
L							Bend T	'est						
#3	Dia Bar	Bend T	est Thr	ough 18	30° is Sa	tisfactory	/							
#3	Dia Bar	Bend T	est Thr	ough 18	30° is Sa	ntisfactory	/							

Witness by Umair Khalid (NESPAK)

#### I/C Testing Laboratoires UET Lahore, Pakistan.

Note:

1- You can See your reports On Internet in the following web site 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.



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

To, Construction Manager Zameen Aurum Construction of Zameen Aurum at Plot No. 15 Block L, Gulberg-III, Main Feroze Pur Road, Lahore Reference # CED/TFL <u>37588 (Dr. Rashid Hameed)</u> Dated: 23-12-2021 Reference of the request letter # ZD/ZA/STR019 Dated: 23-12-2021

# **Tension Test Report** (Page -1/1)

Date of Test Gauge length Description 24-12-2021 8 inches

Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

ir. No.	Weight	Dian Si	neter/ ze	Aı (iı	rea n²)	Yield load	Breaking Load	Yield (p	Stress si)	Ultimat (p	e Stress si)	Elongation	longation	Remarks
S	(lbs/ft)	Nominal (#)	Actual (inch)	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)	% E	
1	4.378	10	1.280	1.27	1.287	39000	54600	67700	66810	94800	93600	1.20	15.0	
2	4.381	10	1.280	1.27	1.288	38600	55200	67000	66070	95800	94500	1.40	17.5	teel
-	-	-	-	-	-	-	-	-	-	-	-	-	-	SJ S
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		6	N	ote: on	ly two s	amples f	or tensile	and one	sample f	or bend	test	1		
							Bend T	'est						
#10	) Bar Be	nd Test	: Throug	gh 180°	is Satis	factory								

I/C Testing Laboratoires UET Lahore, Pakistan.

Note:

1- You can See your reports On Internet in the following web site 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.

# THERE AND THE AND THE

# STRUCTURAL ENGINEERING DIVISION

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

To, Officer Construction N - I Engineer Cell Allied Bank Limited Construction of B/O Khurianwala Jaranwala Road Faisalabad

Reference # CED/TFL 37589 (Dr. Usman Akmal)	Dated: 24-12-2021
Reference of the request letter # GSRE-21/CON/N1/AI/2000	Dated: 24-12-2021

## **Tension Test Report** (Page -1/1)

Date of Test Gauge length Description 24-12-20218 inchesDeformed Steel Bar Tensile and Bend Test as per ASTM-A615

r. No.	Weight	Diameter size		Diameter/ Area size (in <sup>2</sup> )		Yield load	Breaking Load	Yield Stress (psi)		Ultimat (p	te Stress si)	Elongation	longation	marks
S	(lbs/ft)	Nominal (#)	Actual (inch)	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)	% E	Re
1	0.380	3	0.377	0.11	0.112	3640	5200	73000	71920	104200	102800	1.20	15.0	u
2	0.409	3	0.391	0.11	0.120	4150	5610	83200	76020	112500	102800	1.30	16.3	amra Steel
-	-	-	-	-	-	-	-	-	-	-	-	-	-	×
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	I	-	-	-	-	-	-	-	
-	-	-	-	-	-	I	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for Bend test														
							Bend T	`est						
#3	Bar Ber	nd Test	Throug	h 180° i	is Satisf	actory								

I/C Testing Laboratoires UET Lahore, Pakistan.

- 1- You can See your reports On Internet in the following web site 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



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

> I/C Testing Laboratoires UET Lahore, Pakistan.

Note:

1- You can See your reports On Internet in the following web site 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.