

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

To,

M/S Vision Engineering (Pvt) Ltd Lahore

Reference # CED/TFL <u>4702 (Dr. M Rizwan Riaz)</u> Reference of the request letter # VECO/26022024/01/9288/ Dated: 27-02-2024 Dated: 26-02-2024

# Tension Test Report(Page - 1/1)Date of Test04-03-2024

Date of Test04-03-2024Gauge 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)	Brea strength (6.	king 1 clause 2)	Elongation	rks / Coil No.
	(mm)	(kg/km)	(kg/km)	(kg) (kN)		(kg)	(kN)	%	Rema
1	9.53 (3/8")	430.0	435.0	9700	95.16	10600	103.99	>3.50	1
2	9.53 (3/8")	430.0	435.0	9300	91.23	10900	106.93	>3.50	2
3	9.53 (3/8")	430.0	437.0	10200	100.06	11200	109.87	>3.50	3
4	9.53 (3/8")	430.0	437.0			7400	72.59	<3.50 Not ok	4
-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	
			0	nly four samp	les for 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
- 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, NESPAK Kotla Mosa Khan to Kachi Mor Ans Flyover at Firdus Cineme Phatak, District Bahawalpur.

Reference # CED/TFL <u>4709 (Dr. M Rizwan Riaz)</u> Reference of the request letter # RE/MSA/BWP/31 Dated: 28-02-2024 Dated: 19-02-2024

<b>Tension Test Rep</b>	<b>ort</b> (Page -1/1)
Date of Test	04-03-2024
Gauge length	8 inches
Description	Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

r. No.	Weight	Dian Si	neter/ ze	Aı (iı	rea n²)	Yield load	Breaking Load	Yield Stress (psi)		Ultimate Stres (psi)		Elongation	longation	emarks
S	(lbs/ft)	Nominal (#)	Actual (inch)	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)	% E	Re
1	0.379	3	0.377	0.11	0.111	3770	4810	75600	74620	96400	95300	1.20	15.0	
2	0.381	3	0.377	0.11	0.112	3770	4860	75600	74260	97400	95800	1.30	16.3	FF Steel
3	4.328	10	1.273	1.27	1.272	41200	56400	71500	71380	97900	97800	1.40	17.5	
4	4.321	10	1.272	1.27	1.270	41600	56800	72200	72190	98600	98600	1.40	17.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
			No	te: only	y four s	amples f	or tensile	and two	samples	for bend	test	T		
							Bend T	'est						
#3	Bar Ben	d Test [	Through	n 180° i	s Satisfa	ictory								
#10	) Bar Be	nd Test	Throug	gh 180°	is Satis	factory								

I/C Testing Laboratoires UET Lahore, Pakistan.

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

To,

Resident Engineer, Unicon Consulting Services (Pvt) Ltd. Arts, Culture & Humanities Building at University of Agriculture, Faisalabad.

Reference # CED/TFL 4710 (Dr. M Kashif)	Dated: 28-02-2024
Reference of the request letter # Unicon/UAF/T.B	Dated: 16-02-2024

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

Date of Test Gauge length Description 04-03-2024 8 inches Deformed Steel Bar Tensile Test as per ASTM-A615

r. No.	Weight	Dian Si	neter/ ze	Aı (iı	rea n <sup>2</sup> )	Yield load	Breaking Load	Yield (p	Stress si)	Ultimat (p	e Stress si)	Elongation	longation	emarks
S	(lbs/ft)	Nominal (#)	Actual (inch)	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)	% E	Re
1	0.376	3	0.375	0.11	0.111	4100	5150	82200	81760	103200	102700	0.90	11.3	F
-	-	-	-	-	-	-	-	-	-	-	-	-	-	' Stee
-	-	-	-	-	-	-	-	-	-	-	-	-	-	FF
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-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
					No	te: only o	one samp	le for ten	sile test					
							Bend T	est						

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, Prime Engineering & Testing Consultants (Pvt) Ltd. Construction of Link Highway (4 Lane) Connecting LSM at Umerkot to Narowal via Narag Mandi (73 km). Package-III (from km 48+000 to km 62+330) including Narowal Eastern Bypass (10.30 km), Length (24.60 km).
Reference # CED/TFL <u>4711 (Dr. M Rizwan Riaz)</u> Dated: 28-02-2024
Reference of the request letter # PE-ACE-P/LSM-NMN/2024/042

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

Date of Test 04-03-2024

Gauge length 8 inches

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

r. No.	rt) Weight (inal		neter/ ze m)	Area (in <sup>2</sup> )		Yield load Breaking Load		Yield 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	4.131	32	31.58	1.25	1.214	37400	51400	65962	67900	90653	93400	1.70	21.3	Ι
2	4.131	32	31.58	1.25	1.214	37200	51400	65609	67530	90653	93400	1.70	21.3	ugha Steel
-	-	I	-	-	-	-	-	-	-	-	-	-	-	Σ.
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	I	-	-	-	-	-	-	-	-	-	-	-	
			N	ote: on	ly two s	amples f	or tensile	and one	sample f	or bend	test			
													<u> </u>	
							Bend T	est						
321	nm Bar	Bend T	est Thro	ough 18	0° is Sa	tisfactory	r							

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

To,

Director Projects Sheikhoo Sugar Mills (Steel Division) Sheikhoo Steel Anwar Abad Kot Addu, Muzaffargarh

Reference # CED/TFL <u>4713 (Dr. M Kashif)</u> Reference of the request letter # Nil Dated: 29-02-2024 Dated: 27-02-2024

# Tension Test Report(Page -1/1)Date of Test04-03-2024Gauge length8 inchesDescriptionDeformed Steel Bar Tensile Test as per ASTM-A615

r. No.	Weight	Diam Si	Diameter/ A Size (		Area (in²)		Area (in <sup>2</sup> )		Breaking Load	Yield (p	Stress si)	Ultimat (p	e Stress si)	Elongation	longation	emarks
S	(lbs/ft)	Nominal (#)	Actual (inch)	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)	% E	Re		
1	0.367	3	0.370	0.11	0.108	3690	4660	74000	75500	93400	95400	1.10	13.8			
-	-	-	-	-	-	-	-	-	-	-	-	-	-			
-	-	-	-	-	-	-	-	-	-	-	-	-	-			
-	-	-	-	-	-	-	-	-	-	-	-	-	-			
-	-	-	-	-	-	-	-	-	-	-	-	-	-			
-	-	-	-	-	-	-	-	-	-	-	-	-	-			
					Not	te: only o	ne samp	le for ten	sile test		ſ					
							Bend T	est								

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
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To,

# STRUCTURAL ENGINEERING DIVISION

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

Project Engineer Defence Housing Authority, Gujranwala "Construction of Office Complex DHA Gujranwala"

Reference # CED/TFL 4715 (Dr. M Kashif)	Dated:
Reference of the request letter # 111/3/PE Works Sec/Gen/67	Dated:

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

Date of Test Gauge length Description 04-03-2024 8 inches Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight	Diameter/ Size		Area (in²)		Area (in <sup>2</sup> ) Xield Joad Breaking Breaking Breaking Area Vield Streaking Breaking Area Vield Streaking Breaking Breaking Breaking Breaking Area (in <sup>2</sup> ) Area Vield Streaking Breaking Breaking Breaking Area Vield Streaking Breaking Breaking Breaking Breaking Breaking Breaking Breaking Breaking Breaking Area Vield Streaking Break		Stress si)	Ultimate Stress (psi)		Elongation	longation	emarks	
S	(Ilbs/fl)	Nominal (#)	Actual (inch)	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)	% E	Re
1	0.369	3	0.372	0.11	0.108	3230	4810	64800	65670	96400	97800	1.20	15.0	el
2	0.375	3	0.375	0.11	0.110	3430	4840	68800	68560	97000	96800	1.10	13.8	aj Ste
-	-	-	-	-	-	-	-	-	-	-	-	-	_	Sir
-	-	-	-	-	-	-	-	-	-	-	-	-	_	
-	-	-	-	-	-	-	-	-	-	-	-	-	_	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		I	N	ote: on	ly two s	amples f	or tensile	and one	sample f	or bend	test	T		n
							Bend T	est						
#3	Bar Ben	d Test '	Through	n 180° i	s Satisfa	ictory								

I/C Testing Laboratoires UET Lahore, Pakistan.

29-02-2024 29-02-2024

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 ACE - ARTS (Consultants) Establishment of University of Applied Engineering and Emerging Technologies (UAEET) Sambrial, Sialkot

Reference # CED/TFL <u>4716 (Dr. M Kashif)</u> Reference of the request letter # ER/UAEET/ACE/ME/03 Dated: 29-02-2023 Dated: 29-02-2023

# Tension Test Report(Page -1/2)Date of Test04-03-2024Gauge length8 inchesDescriptionDeformed Steel Bar Tensile and Bend Test as per ASTM-A615

ir. No.	Weight	Dian Si	neter/ ze	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 (inch)	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)	<b>H</b> %	R
1	0.371	3	0.372	0.11	0.109	3540	4640	71000	71630	93000	93900	1.20	15.0	eel
2	0.369	3	0.371	0.11	0.108	3540	4690	71000	71990	94000	95400	1.50	18.8	00 St
-	-	-	-	-	-	-	-	-	-	-	-	-	-	eikh
-	-	-	-	-	-	-	-	-	-	-	-	-	-	Sh
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	I	-	-	-	-	-	-	I	-	-	
			N	ote: on	ly two s	amples f	or tensile	and one	sample f	or bend	test	1	(	
							Bend T	est						
#3	Bar Ben	d Test [	Through	n 180° i	s Satisfa	ictory								

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

To,

Resident Engineer ACE - ARTS (Consultants) Establishment of University of Applied Engineering and Emerging Technologies (UAEET) Sambrial, Sialkot

Reference # CED/TFL <u>4716 (Dr. M Kashif)</u> Reference of the request letter # ER/UAEET/ACE/ME/02 Dated: 29-02-2023 Dated: 29-02-2023

<b>Tension Test Rep</b>	ort (Page -2/2)
Date of Test	04-03-2024
Gauge length	8 inches
Description	Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

ir. No.	Weight	Diameter Size		Area (in <sup>2</sup> )		Yield load	Breaking Load	Yield Stress (psi)		Ultimat (p	e Stress si)	Elongation	longation	emarks
<b>S</b> 2	(lbs/ft)	Nominal (#)	Actual (inch)	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)	H %	R
1	0.374	3	0.374	0.11	0.110	3410	4710	68400	68320	94400	94400	1.30	16.3	at #
2	0.374	3	0.374	0.11	0.110	3470	4740	69600	69560	95000	95100	1.30	16.3	l Hes 7-P
-	-	-	-	-	-	-	-	-	-	-	-	-	-	Steel 51'
-	-	-	-	-	-	-	-	-	-	-	-	-	-	ſS
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
			N	ote: on	ly two s	amples f	or tensile	and one	sample f	or bend t	test		[	
							Bend T	'est						
#3	Bar Ben	d Test 7	Fhrough	n 180° i	s Satisfa	ictory								

I/C Testing Laboratoires UET Lahore, Pakistan.

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

To,

Resident Engineer, NESPAK – TurkPak Construction of Green Building for EMC, EPD and Allied New Entities Established under PGDP (DLI-2, PGDP) Lahore.

Reference # CED/TFL 4717 (Dr. M Kashif)Dated: 29-02-2024Reference of the request letter # NESPAK-TURKPAK JV/RE/GBL/2024/02Dated: 29-02-2024

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

Date of Test Gauge length Description 04-03-2024 8 inches Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight	Diameter/ Area Size (in <sup>2</sup> )		Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	longation	emarks			
S	(lbs/ft)	Nominal (#)	Actual (inch)	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)		R
1	0.379	3	0.377	0.11	0.111	3260	4890	65400	64500	98000	96800	1.10	13.8	ır
2	0.375	3	0.374	0.11	0.110	3210	4890	64400	64270	98000	98000	1.20	15.0	urkhc Steel
-	-	-	-	-	-	-	-	-	-	-	-	-	-	Ma
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
			N	ote: on	ly two s	amples f	or tensile	and one	sample f	or bend	test			
							Bend T	est						
#3	#3 Bar Bend Test Through 180° is Satisfactory													

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

To,

HQ 495 Engr Group National Hockey Stadium C/O Sigcen Lahore

Reference # CED/TFL 4718 (Dr. M Kashif)	Dated: 29-02-2024
Reference of the request letter # PC 920 Testing/Steel/Ord	Dated: 29-02-2024

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

Date of Test Gauge length Description 04-03-2024

8 inches

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

Sr. No.	Weight	Dian Si	neter/ ize	Aı (iı	rea n²)	Yield load	Breaking Load	Yield Stress (psi)		ess Ultimate (psi		Elongation	longation	emarks										
S	(lbs/ft)	Nominal (#)	Actual (inch)	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)	% E	R										
1	0.383	3	0.379	0.11	0.113	3570	5450	71600	69910	109200	106800	1.10	13.8											
2	0.379	3	0.377	0.11	0.112	3360	4690	67400	66410	94000	92700	1.30	16.3	Aziz Steel										
-	-	-	-	-	-	-	-	-	-	-	-	-	-											
-	-	-	-	-	-	-	-	-	-	-	-	-	-											
-	-	-	-	-	-	-	-	-	-	-	-	-	-											
-	-	-	-	-	-	-	-	-	-	-	-	-	-											
			N	ote: on	ly two s	amples f	or tensile	and one	sample f	or bend	test													
	Bend Test																							
#3 Bar Bend Test Through 180° is Satisfactory																								

I/C Testing Laboratoires UET Lahore, Pakistan.

Note:

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

To,

Resident Engineer, 4376-E NESPAK Dualization of Sargodha, Khushab, Mainwali Road (Group-IV from km 244.81 to 267.37 = 22.56 km)

Reference # CED/TFL <u>4720 (Dr. M Kashif)</u> Reference of the request letter # RE/4376-E/JQK/4d/414 Dated: 01-03-2024 Dated: 15-02-2024

<b>Tension Test Rep</b>	<b>ort</b> (Page -1/1)
Date of Test	04-03-2024
Gauge length	8 inches
Description	Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

r. No.	Weight	Dian Si	neter/ ze	Aı (iı	rea n²)	Yield load	Breaking Load	Yield Stress (psi)		tress Ultimate Str ) (psi)		Elongation	longation	emarks
S	(lbs/ft)	Nominal (#)	Actual (inch)	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)	<b>3 %</b>	B
1	0.380	3	0.377	0.11	0.112	3640	4400	73000	71800	88200	86800	1.50	18.8	Ste
2	0.383	3	0.378	0.11	0.113	3620	4400	72600	70920	88200	86200	1.40	17.5	reme el
-	-	-	-	-	-	-	-	-	-	-	-	-	-	IdnS
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	I	-	-	-	-	-	-	I	-	-	
			N	ote: on	ly two s	amples f	or tensile	and one	sample f	or bend	test	1		
							Bend T	est						
#3	#3 Bar Bend Test Through 180° is Satisfactory													

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

Ref: <u>CED/TFL/03/4727</u>

Dated: 04-03-2024

Dated of Test: 04-03-2024

То

M/s National Technocommercial Services (Private) Limited Lahore

## Subject: - BREAKING LOAD TEST OF LUG No. MK-59 (NTS with Harding) (Page # 1/2)

Reference to your Letter No. NTS/DC-Lug 59/DC/24, dated: 04/03/2024, on the subject cited above. One Lug No. Sr. 1 (dia 44.0 mm, Length 66.50mm) with assembly as received by us have been tested. The results are shown below:

Sample No. : 1

Breaking Load : 13700 kg

Remarks : Hook Break

I/C Testing Laboratoires UET Lahore, Pakistan.

<sup>1-</sup> 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

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

<sup>3-</sup> 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

Ref: <u>CED/TFL/03/4727</u>

Dated: 04-03-2024

Dated of Test: 04-03-2024

То

M/s National Technocommercial Services (Private) Limited Lahore

# Subject: - BREAKING LOAD TEST OF LUG) (MK-2) No. - 43A (ATR) (NTS with Harding) (Page # 2/2)

Reference to your Letter No. NTS/DC-Lug 43A/DC/24, dated: 04/03/2024, on the subject cited above. One Lug No. Sr. 2 (dia 44 mm, Length 59mm) with assembly as received by us has been tested. The results are shown below:

Sample No. : 1

Breaking Load : 12700 kg

Remarks : Hook Break

I/C Testing Laboratoires UET Lahore, Pakistan.

<sup>1-</sup> 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

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

<sup>3-</sup> 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,

Muhammad Irfan M.I.C Construction of Coca Cola Factory Lahore.

Reference # CED/TFL <u>4732 (Dr. Kashif Ali)</u> Reference of the request letter # ST/UET/01032024/3000 Dated: 04-03-2024 Dated: 01-03-2024

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

Date of Test Gauge length Description 04-03-2024 8 inches Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight	Dian Si	neter/ ize	Aı (iı	rea n²)	Yield load	Breaking Load	Yield Stress (psi)		ess Ultimate St (psi)		Ultimate Stress (psi)		Elongation	longation	emarks
	(lbs/ff)	Nominal (#)	Actual (inch)	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)	% E	Re		
1	0.374	3	0.374	0.11	0.110	3740	4740	75000	75000	95000	95100	1.40	17.5			
2	0.374	3	0.374	0.11	0.110	3720	4740	74600	74600	95000	95100	1.30	16.3			
-	-	-	-	I	-	-	-	-	-	-	-	-	I			
-	-	-	-	I	-	-	-	-	-	-	-	-	I			
-	-	-	-	-	-	-	-	-	-	-	-	-	-			
-	-	-	-	-	-	-	-	-	-	-	-	-	-			
			N	ote: on	ly two s	amples f	or tensile	and one	sample f	or bend	test	1				
							Bend T	`est								
#3	#3 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,

Resident Engineer NESPAK Construction of New 4-Lane Ravi Bridge Over River Ravi, Lahore. (WMI)

Reference # CED/TFL <u>4734 (Dr. Ubaid Ahmed)</u> Reference of the request letter # 4537/03/MSA/09/205 Dated: 04-03-2024 Dated: 04-03-2024

# **Tension Test Report** (Page -1/3)

Date of Test05-03-2024Gauge length640 mmDescriptionSteel Strand Tensile Test as per ASTM A-416-94a

Sr. No.	Nominal Diameter	I Nominal Measured Yield stre Weight weight clause (6		trength e (6.3)	Brea stre claus	nking ngth e (6.2)	Young's Modulus of Elasticity "E"	Elongation	rks / Coil No.			
	(mm)	(kg/km)	(kg/km)	(kg)	(kN)	(kg)	(kN)	GPa	%	Rema		
1	12.70 (1/2")	780.0	780.0	17700	173.64	19800	194.24	198	>3.50	25249		
2	12.70 (1/2")	780.0	784.0	18000	176.58	20200	198.16	199	>3.50	25250		
-	-	-	-	-	-	-	-	-	-			
-	-	-	-	-	-	-	-	-	-			
-	-	-	-	-	-	-	-	-	-			
-	-	-	-	-	-	-	-	-	-			
	Only two samples for Test											

Witness by Habib (Lab. Tech. NESPAK)

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.



To,

# STRUCTURAL ENGINEERING DIVISION

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

Resident Engineer NESPAK Construction of New 4-Lane Ravi Bridge Over River Ravi, Lahore. (WMI)

Reference # CED/TFL 4734 (Dr. Ubaid Ahmed)	Dated: 04-03-2024
Reference of the request letter # 4537/03/MSA/09/205	Dated: 04-03-2024

# Graph (Page – 2/3)



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.



To,

# STRUCTURAL ENGINEERING DIVISION

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

Resident Engineer NESPAK Construction of New 4-Lane Ravi Bridge Over River Ravi, Lahore. (WMI)

Reference # CED/TFL 4734 (Dr. Ubaid Ahmed)	Dated: 04-03-2024
Reference of the request letter # 4537/03/MSA/09/205	Dated: 04-03-2024

# Graph (Page – 3/3)



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,

Site Engineer **OZ** Developers **RISINGBEYOND** Pvt. Ltd. Constructing a high-rise building "Bahria Sky" at Bahria Orchard Phase 4, Lahore.

Reference # CED/TFL **4735** (Dr. Rizwan Riaz) Reference of the request letter # NIL

Dated: 04-03-2024 Dated: 04-03-2024

Remarks

**FF** Steel

	T Da	ension ate of T	est	Repor	t (Pa -03-202	age -1/1) 24									
	Ga De	auge ler	ngth On	ð í De	o menes Deformed Steel Bar Tensile and Bend Test as per ASTM-A615										
ir. No.	Weight	Dian Si	neter/ ze	Aı (iı	rea 1 <sup>2</sup> )	Yield load	Breaking Load	Yield Stress (psi)		Ultimat (p	Elongation	longation			
S	(lbs/ft)	Nominal (#)	Actual (inch)	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)	% E		
1	0.372	3	0.373	0.11	0.109	3820	4920	76600	77040	98600	99300	1.10	13.8		
2	0.369	3	0.371	0.11	0.108	3800	4800	76200	77320	96200	97700	1.20	15.0		
-	-	-	-	-	-	-	-	-	-	-	-	-	-		
-	-	-	-	-	-	-	-	-	-	-	-	-	-		
-	-	-	-	-	-	-	-	-	-	-	-	-	-		

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

Bend Test

I/C Testing Laboratoires UET Lahore, Pakistan.

Note:

#3 Bar Bend Test Through 180° is Satisfactory

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- 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,

Project Manager HMB Developers Pvt. Ltd. Commercial Tower, FTC Lahore (DC # 755)

Reference # CED/TFL <u>4736 (Dr. M Rizwan Riaz)</u> Reference of the request letter # HMBDPL/S.O/03/24/91 (LHR) Dated: 04-03-2024 Dated: 04-03-2024

# Tension Test Report (Page -1/1)Date of Test04-03-2024Gauge length8 inchesDescriptionDeformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight	Dian Si	neter/ ze	Aı (iı	rea n²)	Yield load	Breaking Load	Yield (p	Yield Stress (psi)		Ultimate Stress (psi)		longation	emarks
	(lbs/ft)	Nominal (#)	Actual (inch)	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)	H %	R
1	4.192	10	1.253	1.27	1.232	41800	54800	72600	74780	95200	98100	1.60	20.0	
2	4.167	10	1.249	1.27	1.225	41000	54400	71200	73770	94500	97900	1.60	20.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	I	-	-	-	-	-	-	-	-	I	
-	-	-	-	I	-	-	-	-	-	-	-	-	I	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
			N	ote: on	ly two s	amples f	or tensile	and one	sample f	or bend t	test			
							Bend T	est						
#10	#10 Bar Bend Test Through 180° is Satisfactory													

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
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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:

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