



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

Development of a Controlled Access Corridor Facility from Niazi Interchange to Babu Sabu Interchange, Lahore, Package – I (km 0+000 to km 3+650)
(United Wires)

Reference # CED/TFL **4337** (Dr. M Kashif)

Dated: 11-12-2023

Reference of the request letter # 3772/103/NBI(P-I)/MWA/04/97

Dated: 09-12-2023

Tension Test Report (Page – 1/2)

Date of Test 14-12-2023

Gauge length 640 mm

Description Steel Strand Tensile Test as per ASTM A-416-94a

| Sr. No. | Nominal Diameter | Nominal Weight | Measured weight | Yield strength clause (6.3) | | Breaking strength clause (6.2) | | Young's Modulus of Elasticity | % Elongation | Remarks / Coil No. |
|---------|------------------|----------------|-----------------|-----------------------------|--------|--------------------------------|--------|-------------------------------|--------------|--------------------|
| | (mm) | (kg/km) | (kg/km) | (kg) | (kN) | (kg) | (kN) | E, GPa | | |
| 1 | 15.24 (0.6") | 1102.0 | 1133.0 | 24400 | 239.36 | 27900 | 273.70 | 199 | >3.50 | A |
| 2 | 15.24 (0.6") | 1102.0 | 1131.0 | 24500 | 240.35 | 28000 | 274.68 | 198 | >3.50 | 1295 |
| - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | |

Only two samples for Test

Witness by M Saleem (M.S 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:

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NESPAK

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(United Wires)

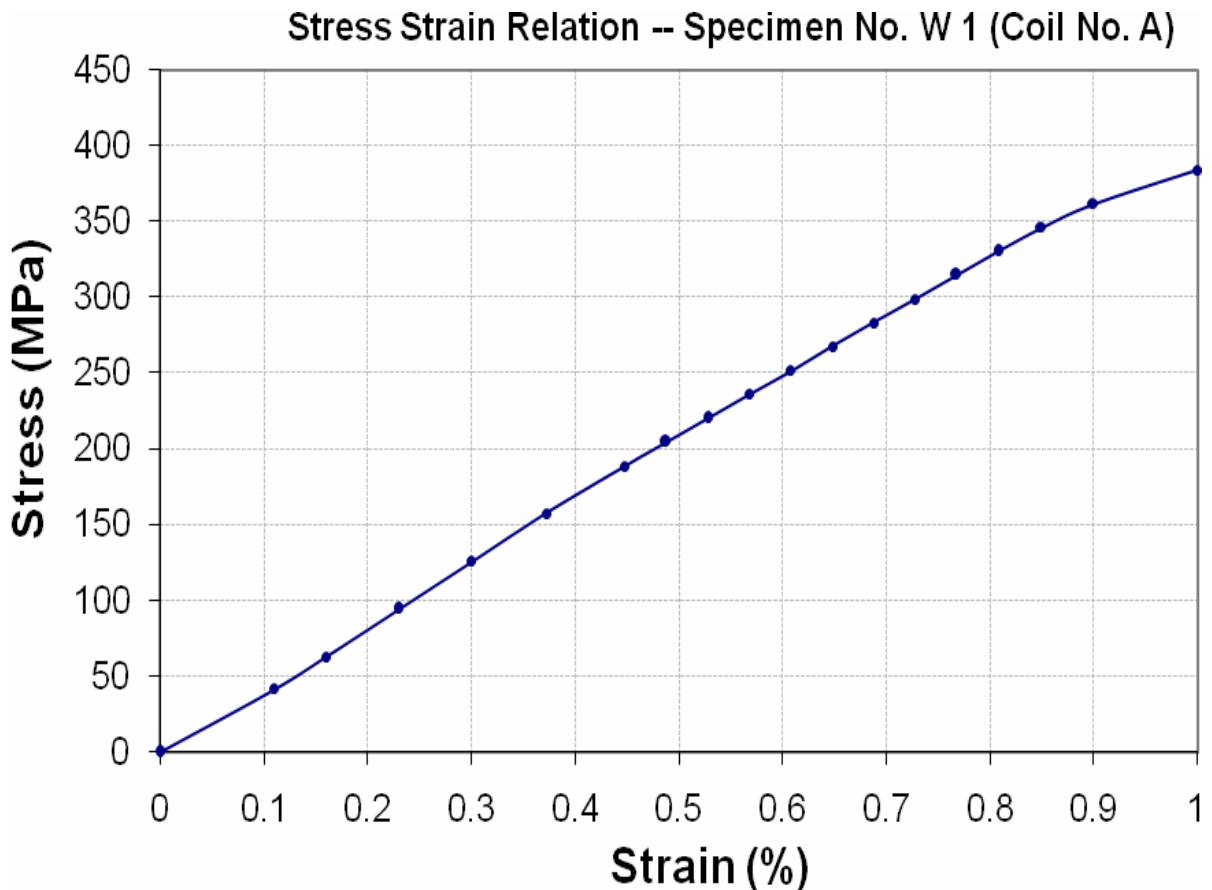
Reference # CED/TFL **4337** (Dr. M Kashif)

Dated: 11-12-2023

Reference of the request letter # 3772/103/NBI(P-I)/MWA/04/97

Dated: 09-12-2023

Graph (Page – 2/3)



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(United Wires)

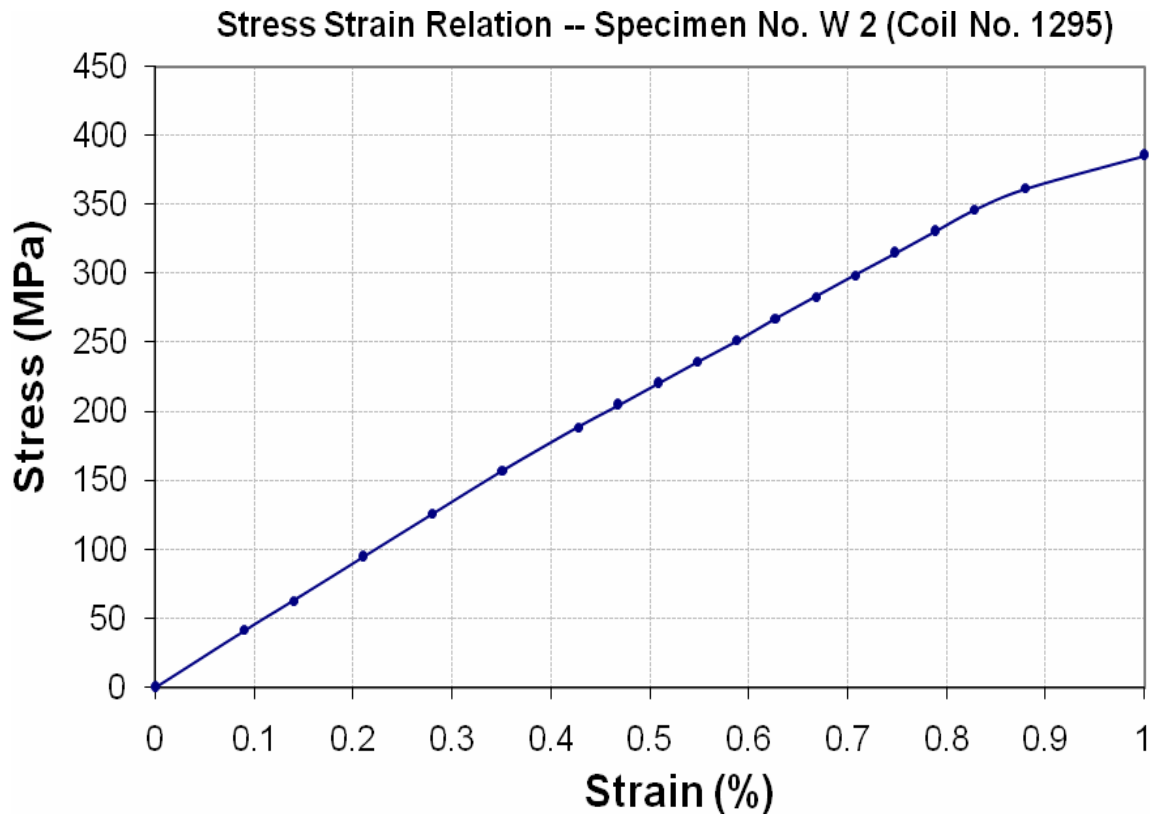
Reference # CED/TFL **4337** (Dr. M Kashif)

Dated: 11-12-2023

Reference of the request letter # 3772/103/NBI(P-I)/MWA/04/97

Dated: 09-12-2023

Graph (Page – 3/3)



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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

Ref: CED/TFL/12/4338

Dated: 12-12-2023

Date of Calibration: 14-12-2023

To

M/S StrongHold Pakistan (Private Ltd.
Karachi

Subject: - **CALIBRATION OF HYDRAULIC JACK (MARK: TFL/12/4338)** (Page – 1/2)

Reference to your Letter No. Nil, dated: 12/12/2023 on the subject cited above. One Hydraulic Jack (Jack No. 070 G200, Pump No. 965 B-2) as received by us has been calibrated. The results are tabulated as under:

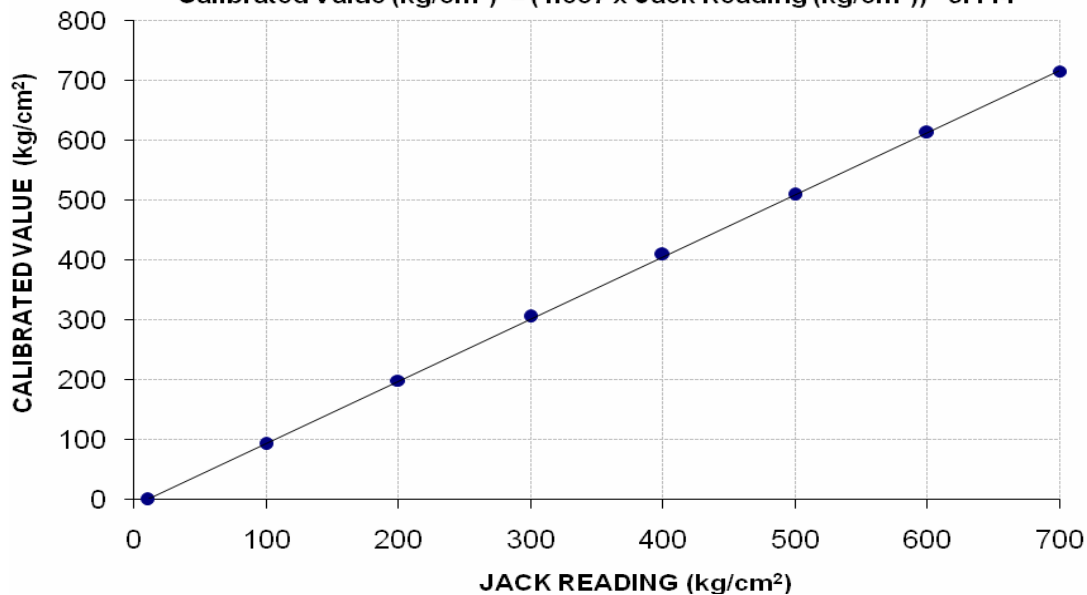
Total Range : Zero - 1000 (kg/cm²)
Calibrated Range : Zero - 700 (kg/cm²)

| Hydraulic Jack Reading (kg/cm ²) | 10 | 100 | 200 | 300 | 400 | 500 | 600 | 700 |
|--|----|-------|-------|-------|--------|--------|--------|--------|
| Calibrated Load (kg) | 0 | 24800 | 53000 | 81600 | 109200 | 136000 | 163600 | 191200 |
| Calibrated Pressure (kg/cm ²) | 0 | 93 | 198 | 305 | 409 | 509 | 612 | 716 |

The Ram Area of Jack = 267.22 cm²

Calibration Curve For Jack No. 070 G200

Calibrated Value (kg/cm²) = (1.037 x Jack Reading (kg/cm²)) - 9.114



I/C Testing Laboratoires
UET Lahore, Pakistan.

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

Ref: CED/TFL/12/4338

Dated: 12-12-2023

Date of Calibration: 14-12-2023

To

M/S StrongHold Pakistan (Private Ltd.
Karachi

Subject: - **CALIBRATION OF HYDRAULIC JACK (MARK: TFL/12/4338)** (Page – 2/2)

Reference to your Letter No. Nil, dated: 12/12/2023 on the subject cited above. One Hydraulic Jack (Jack No. 074 G200, Pump No. 975 B-2) as received by us has been calibrated. The results are tabulated as under:

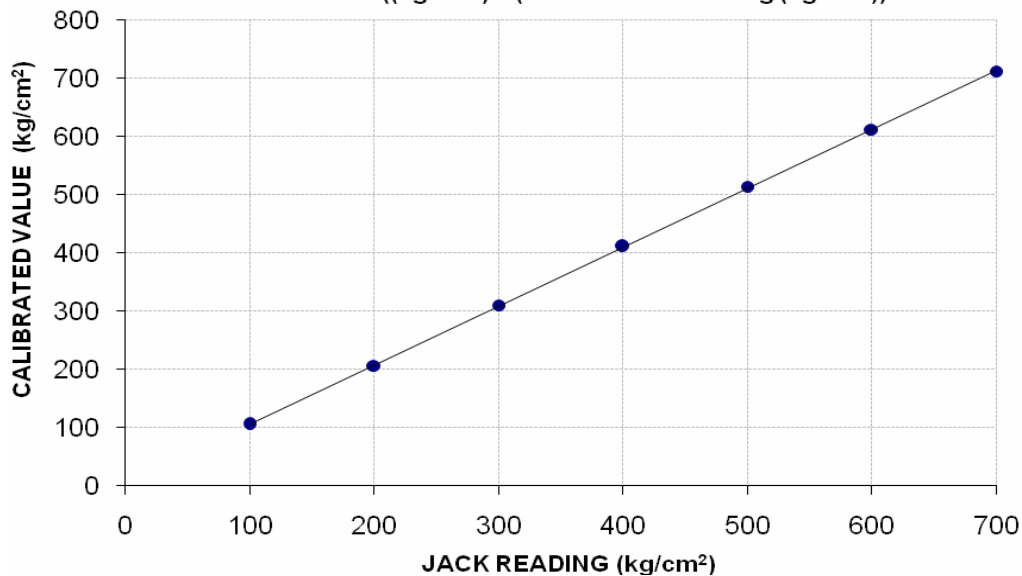
Total Range : Zero - 1000 (kg/cm²)
Calibrated Range : Zero - 700 (kg/cm²)

| Hydraulic Jack Reading (kg/cm ²) | 100 | 200 | 300 | 400 | 500 | 600 | 700 |
|--|-------|-------|-------|--------|--------|--------|--------|
| Calibrated Load (kg) | 28200 | 55200 | 82800 | 109800 | 137200 | 163400 | 190400 |
| Calibrated Pressure (kg/cm ²) | 106 | 207 | 310 | 411 | 513 | 611 | 713 |

The Ram Area of Jack = 267.22 cm²

Calibration Curve For Jack No. 074 G200

Calibrated Value ((kg/cm²) = (1.012 x Jack Reading (kg/cm²)) + 5.132



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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,
 Resident Engineer
 Ritz Developers Pvt. Ltd
 Gulberg-III, Lahore

Reference # CED/TFL **4339** (Dr. M Kashif)
 Reference of the request letter # Nil

Dated: 12-12-2023
 Dated: 11-12-2023

Tension Test Report

Date of Test 14-12-2023
 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 | 0.368 | 3 | 0.371 | 0.11 | 0.108 | 3520 | 4960 | 70600 | 71740 | 99400 | 101100 | 1.30 | 16.3 | Moiz Steel |
| 2 | 0.372 | 3 | 0.373 | 0.11 | 0.109 | 3590 | 5320 | 72000 | 72280 | 106600 | 107200 | 1.00 | 12.5 | |
| 3 | 0.368 | 3 | 0.371 | 0.11 | 0.108 | 3520 | 4960 | 70600 | 71740 | 99400 | 101100 | 1.10 | 13.8 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| Note: only three samples for tensile and one sample for bend test | | | | | | | | | | | | | | |
| Bend Test | | | | | | | | | | | | | | |
| #3 Bar Bend Test Through 180° is Satisfactory | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |

I/C Testing Laboratoires
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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
 Construction of Multi-Level Grade Separation Flyover at Shahdra Morr, Lahore
 (Aziz Steel)

Reference # CED/TFL **4340** (Dr. M Kashif)

Dated: 12-12-2023

Reference of the request letter# 4537/03/MSA/09/164

Dated: 06-12-2023

Tension Test Report (Page -1/2)

Date of Test 14-12-2023

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 | Heat No. |
|---------|--------------------|-------------------|------------------|----------------------------|--------|--------------------|--------------------------|-----------------------|--------|--------------------------|--------|----------------------|--------------|----------|
| | | Nominal (#) | Actual (inch) | Nominal | Actual | | | Nominal | Actual | Nominal | Actual | | | |
| 1 | 4.275 | 10 | 1.265 | 1.27 | 1.257 | 36200 | 58000 | 62900 | 63500 | 100700 | 101800 | 1.70 | 21.3 | 20 |
| 2 | 4.233 | 10 | 1.259 | 1.27 | 1.244 | 36600 | 59400 | 63600 | 64840 | 103100 | 105300 | 1.40 | 17.5 | 21 |
| 3 | 4.267 | 10 | 1.264 | 1.27 | 1.254 | 36400 | 59400 | 63200 | 63970 | 103100 | 104400 | 1.20 | 15.0 | 25 |
| 4 | 4.294 | 10 | 1.268 | 1.27 | 1.262 | 36400 | 58200 | 63200 | 63560 | 101100 | 101700 | 1.50 | 18.8 | 127 |
| 5 | 4.244 | 10 | 1.260 | 1.27 | 1.247 | 36200 | 59200 | 62900 | 63970 | 102800 | 104600 | 1.20 | 15.0 | 520 |
| 6 | 4.213 | 10 | 1.256 | 1.27 | 1.238 | 35200 | 58000 | 61100 | 62660 | 100700 | 103300 | 1.50 | 18.8 | 522 |
| 7 | 4.196 | 10 | 1.253 | 1.27 | 1.233 | 34800 | 56400 | 60400 | 62200 | 97900 | 100800 | 1.40 | 17.5 | 526 |
| 8 | 4.231 | 10 | 1.258 | 1.27 | 1.244 | 35200 | 57600 | 61100 | 62380 | 100000 | 102100 | 1.50 | 18.8 | 528 |

Note: only eight samples for tensile and eight samples for bend test

Bend Test

- #10 Bar Bend Test Through 180° is Satisfactory
- #10 Bar Bend Test Through 180° is Satisfactory
- #10 Bar Bend Test Through 180° is Satisfactory
- #10 Bar Bend Test Through 180° is Satisfactory
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I/C Testing Laboratoires
UET Lahore, Pakistan.

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STRUCTURAL ENGINEERING DIVISION
Test Floor Laboratory
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Pakistan. Ph: 92-42-99029202

To,

Resident Engineer
 NESPAK
 Construction of Multi-Level Grade Separation Flyover at Shahdra Morr, Lahore
 (Aziz Steel)

Reference # CED/TFL **4340** (Dr. M Kashif)

Dated: 12-12-2023

Reference of the request letter# 4537/03/MSA/09/162

Dated: 05-12-2023

Tension Test Report (Page -2/2)

Date of Test 14-12-2023

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 | Heat No. |
|---------|--------------------|-------------------|------------------|----------------------------|--------|--------------------|--------------------------|-----------------------|--------|--------------------------|--------|----------------------|--------------|----------|
| | | Nominal (#) | Actual (inch) | Nominal | Actual | | | Nominal | Actual | Nominal | Actual | | | |
| 1 | 4.262 | 10 | 1.263 | 1.27 | 1.253 | 34400 | 55400 | 59700 | 60520 | 96200 | 97500 | 1.40 | 17.5 | 24 |
| 2 | 4.251 | 10 | 1.261 | 1.27 | 1.249 | 34400 | 55400 | 59700 | 60680 | 96200 | 97800 | 1.60 | 20.0 | 525 |
| 3 | 4.245 | 10 | 1.260 | 1.27 | 1.248 | 34400 | 55400 | 59700 | 60770 | 96200 | 97900 | 1.50 | 18.8 | 31 |
| 4 | 4.246 | 10 | 1.261 | 1.27 | 1.248 | 36800 | 59200 | 63900 | 65000 | 102800 | 104600 | 1.20 | 15.0 | 531 |
| 5 | 4.222 | 10 | 1.257 | 1.27 | 1.241 | 36600 | 59000 | 63600 | 65010 | 102400 | 104800 | 1.30 | 16.3 | 529 |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

Note: only five samples for tensile and five samples for bend test

Bend Test

#10 Bar Bend Test Through 180° is Satisfactory

#10 Bar Bend Test Through 180° is Satisfactory

#10 Bar Bend Test Through 180° is Satisfactory

#10 Bar Bend Test Through 180° is Satisfactory

#10 Bar Bend Test Through 180° is Satisfactory

I/C Testing Laboratories
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 Hussain Contractor
 Sialkot
 (Coffee Point, Sialkot Airport.)

Reference # CED/TFL **4341** (Dr. M Kashif)
 Reference of the request letter # Nil

Dated: 12-12-2023
 Dated: 12-12-2023

Tension Test Report (Page -1/1)

Date of Test 14-12-2023
 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 | 0.376 | 3 | 0.375 | 0.11 | 0.111 | 3640 | 5170 | 73000 | 72520 | 103600 | 103000 | 0.80 | 10.0 | |
| 2 | 0.379 | 3 | 0.377 | 0.11 | 0.111 | 3570 | 5010 | 71600 | 70570 | 100400 | 99100 | 1.10 | 13.8 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| 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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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 # 723)

Reference # CED/TFL 4342 (Dr. M Kashif) Dated: 12-12-2023
 Reference of the request letter # HMBDPL/S.O/12/23/79 (LHR) Dated: 12-12-2023

Tension Test Report (Page -1/1)

Date of Test 14-12-2023
 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 | 4.158 | 10 | 1.247 | 1.27 | 1.222 | 40800 | 54800 | 70900 | 73590 | 95200 | 98900 | 1.70 | 21.3 | |
| 2 | 4.189 | 10 | 1.252 | 1.27 | 1.231 | 43400 | 56600 | 75400 | 77690 | 98300 | 101400 | 1.50 | 18.8 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |

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

Bend Test

#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
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Pakistan. Ph: 92-42-99029202

To,

M/S Mustafa Contractor (Pvt) Ltd.

Lahore

(Construction of ABL Lahore Road Tehsil Bucheki Branch, District Nankana Sahib
(0006))

(Allied Bank Limited.)

Reference # CED/TFL **4347** (Dr. M Kashif)

Dated: 13-12-2023

Reference of the request letter # AMC/UET/1737-23

Dated: 12-12-2023

Tension Test Report (Page -1/1)

Date of Test 14-12-2023

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 | 0.374 | 3 | 0.374 | 0.11 | 0.110 | 3870 | 4890 | 77600 | 77660 | 98000 | 98200 | 1.00 | 12.5 | Mughal Steel |
| 2 | 0.374 | 3 | 0.374 | 0.11 | 0.110 | 3890 | 4910 | 78000 | 77960 | 98400 | 98400 | 1.20 | 15.0 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| 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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Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,

M/S Ibna Al Aziz Construction Company.
 Lahore
 (Project: S. Abdullah Ceramic, Alama Iqbal Industrial Area, Faisalabad.)

Reference # CED/TFL **4348** (Dr. M Kashif)
 Reference of the request letter # IAA-131223

Dated: 13-12-2023
 Dated: 13-12-2023

Tension Test Report (Page -1/1)

Date of Test 14-12-2023
 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 | 0.367 | 3/8 | 0.371 | 0.11 | 0.108 | 3520 | 5070 | 70600 | 71920 | 101600 | 103600 | 1.10 | 13.8 | Model Steel | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | | |
| Note: only one samples for tensile and one sample for bend test | | | | | | | | | | | | | | | |
| Bend Test | | | | | | | | | | | | | | | |
| 3/8" Dia Bar Bend Test Through 180° is Satisfactory | | | | | | | | | | | | | | | |
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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



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 Rana Associates
New Garden Town, Lahore

Reference # CED/TFL **4350** (Dr. M Kashif)
Reference of the request letter # Nil

Dated: 13-12-2023

Dated: 13-12-2023

Tension Test Report (Page -1/1)

Date of Test 14-12-2023

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 | 0.370 | 3/8 | 0.372 | 0.11 | 0.109 | 3330 | 4860 | 66800 | 67430 | 97400 | 98500 | 1.20 | 15.0 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| Note: only one samples for tensile and one sample for bend test | | | | | | | | | | | | | | |
| Bend Test | | | | | | | | | | | | | | |
| 3/8" Dia Bar Bend Test Through 180° is Satisfactory | | | | | | | | | | | | | | |
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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

To,
 Resident Engineer
 Shahzad Ayub Associates (SAA)
 New Metro City Srailamgir

Reference # CED/TFL **4351** (Dr. M Kashif)
 Reference of the request letter # SAA-St-Rep-009

Dated: 13-12-2023
 Dated: 07-12-2023

Tension Test Report (Page -1/2)

Date of Test 14-12-2023
 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 | 0.376 | 3 | 0.375 | 0.11 | 0.111 | 3670 | 4890 | 73600 | 73160 | 98000 | 97500 | 1.20 | 15.0 | FF Steel |
| 2 | 0.376 | 3 | 0.375 | 0.11 | 0.110 | 3540 | 4810 | 71000 | 70690 | 96400 | 96100 | 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 | | | | | | | | | | | | | | |
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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

To,
Resident Engineer
Shahzad Ayub Associates (SAA)
New Metro City Srai Alamgir

Reference # CED/TFL **4351** (Dr. M Kashif)
Reference of the request letter # SAA-St-Rep-008

Dated: 13-12-2023
Dated: 07-12-2023

Tension Test Report (Page -2/2)

Date of Test 14-12-2023
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 | 0.384 | 3 | 0.379 | 0.11 | 0.113 | 3590 | 5150 | 72000 | 70190 | 103200 | 100700 | 1.20 | 15.0 | SJ Steel |
| 2 | 0.378 | 3 | 0.376 | 0.11 | 0.111 | 3360 | 4890 | 67400 | 66580 | 98000 | 96900 | 1.10 | 13.8 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| Note: only two samples for tensile and one sample for bend test | | | | | | | | | | | | | | |
| Bend Test | | | | | | | | | | | | | | |
| #3 Bar Bend Test Through 180° is Satisfactory | | | | | | | | | | | | | | |
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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
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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 Amanah Noor Residence
 Wapda Town, Lahore

Reference # CED/TFL **4352** (Dr. M Kashif)
 Reference of the request letter # Nil

Dated: 13-12-2023
 Dated: 13-12-2023

Tension Test Report (Page -1/1)

Date of Test 14-12-2023
 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 | 0.374 | 3 | 0.374 | 0.11 | 0.110 | 4400 | 5360 | 88200 | 88180 | 107400 | 107500 | 0.80 | 10.0 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| Note: only one samples for tensile and one sample for bend test | | | | | | | | | | | | | | |
| Bend Test | | | | | | | | | | | | | | |
| #3 Bar Bend Test Through 180° is Satisfactory | | | | | | | | | | | | | | |
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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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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 Amanah Noor Residence
 Wapda Town, Lahore

Reference # CED/TFL **4353** (Dr. M Kashif)
 Reference of the request letter # Nil

Dated: 13-12-2023
 Dated: 13-12-2023

Tension Test Report (Page -1/1)

Date of Test 14-12-2023
 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 | 0.372 | 3 | 0.373 | 0.11 | 0.109 | 4000 | 4840 | 80200 | 80560 | 97000 | 97500 | 1.00 | 12.5 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| Note: only one samples for tensile and one sample for bend test | | | | | | | | | | | | | | |
| Bend Test | | | | | | | | | | | | | | |
| #3 Bar Bend Test Through 180° is Satisfactory | | | | | | | | | | | | | | |
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I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

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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

To,

Engineer Farid ullah Shah
The Resident Consulting Engineers
Acrow Consultant
Construction of Apartment Building at 45-B-1, Gulberg-III, Lahore

Reference # CED/TFL **4354** (Dr. M Kashif)
Reference of the request letter # ACROW/C/45-B/25

Dated: 13-12-2023
Dated: 13-12-2023

Tension Test Report (Page -1/1)

Date of Test 14-12-2023
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 | 0.381 | 3 | 0.377 | 0.11 | 0.112 | 3470 | 5250 | 69600 | 68370 | 105200 | 103500 | 1.00 | 12.5 | |
| 2 | 0.371 | 3 | 0.373 | 0.11 | 0.109 | 3310 | 5010 | 66400 | 66810 | 100400 | 101200 | 0.80 | 10.0 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| Note: only two samples for tensile and one sample for bend test | | | | | | | | | | | | | | |
| Bend Test | | | | | | | | | | | | | | |
| #3 Bar Bend Test Through 180° is Satisfactory | | | | | | | | | | | | | | |
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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



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 Al Fazal Construction Company
 Establishment of RHC at Chak No. 36-A/4-L District Okara.

Reference # CED/TFL **4355** (Dr. M Kashif)
 Reference of the request letter # Nil

Dated: 14-12-2023
 Dated: 14-12-2023

Tension Test Report (Page -1/1)

Date of Test 14-12-2023
 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 | 0.370 | 3 | 0.372 | 0.11 | 0.109 | 3690 | 5150 | 74000 | 74860 | 103200 | 104500 | 1.30 | 16.3 | Sheikhoo Steel |
| 2 | 0.368 | 3 | 0.371 | 0.11 | 0.108 | 3640 | 5150 | 73000 | 74190 | 103200 | 105000 | 1.10 | 13.8 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| Note: only two samples for tensile test | | | | | | | | | | | | | | |
| Bend Test | | | | | | | | | | | | | | |
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I/C Testing Laboratoires
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