

Mian Muhammad Saleem

Test Performed By:

Dr. /Engr.

Asad Ali Gillani

PM RFL-Project, Banu Mukhtar. (Roomi Fabric Ltd)(Quid-e-Azam Business Park, SKP)

Client Reference: Nil

Dated: 21-02-2022

SOM Lab Ref: CED/SOM/5914(Page-1/1)

Dated: 21-02-2022

Test: Tension Test & Bend Test

Test Specification: ASTM-A 615

Sample Type: M S Deformed Bar (Amreli Steel)

Gauge Length: 200 mm

| S.No. | Weight | Dia.    |            | Area            |                 | Yield Load | Ultimate Load | Yield Stress                |                              | Ult. Stress                 |                              | Elongation | Gauge Length | %age Elongation | Remarks |
|-------|--------|---------|------------|-----------------|-----------------|------------|---------------|-----------------------------|------------------------------|-----------------------------|------------------------------|------------|--------------|-----------------|---------|
|       |        | Nominal | Calculated | Nominal         | Calculated      |            |               | (according to nominal area) | (according to measured area) | (according to nominal area) | (according to measured area) |            |              |                 |         |
|       | kg/m   | mm      | mm         | mm <sup>2</sup> | mm <sup>2</sup> | kN         | kN            | MPa                         | MPa                          | MPa                         | MPa                          | mm         | mm           | %               |         |
| 1     | 3.856  | 25      | 25.00      | 491             | 491             | 279.00     | 336.50        | 568                         | 569                          | 686                         | 686                          | 32.5       | 200          | 16.3            |         |
| 2     | 3.837  | 25      | 24.95      | 491             | 489             | 275.00     | 332.20        | 560                         | 563                          | 677                         | 680                          | 32.5       | 200          | 16.3            |         |
| 3     | 2.446  | 20      | 19.92      | 314             | 312             | 174.20     | 216.20        | 554                         | 560                          | 688                         | 694                          | 30.0       | 200          | 15.0            |         |
| 4     | 2.437  | 20      | 19.88      | 314             | 310             | 173.20     | 215.20        | 551                         | 558                          | 685                         | 694                          | 27.5       | 200          | 13.8            |         |
| 5     | 1.608  | 16      | 16.15      | 201             | 205             | 123.00     | 146.20        | 612                         | 601                          | 727                         | 714                          | 30.0       | 200          | 15.0            |         |
| 6     | 1.611  | 16      | 16.17      | 201             | 205             | 122.70     | 146.20        | 610                         | 598                          | 727                         | 713                          | 30.0       | 200          | 15.0            |         |
| 7     | 0.907  | 12      | 12.13      | 113             | 115             | 69.20      | 79.70         | 612                         | 600                          | 705                         | 691                          | 25.0       | 200          | 12.5            |         |
| 8     | 0.890  | 12      | 12.02      | 113             | 113             | 68.50      | 78.50         | 606                         | 605                          | 694                         | 693                          | 22.5       | 200          | 11.3            |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |

**BEND TEST:**

|      |  |  |
|------|--|--|
| 25mm | Sample bend through 180 degrees Satisfactorily without any crack | <b>Note:-</b><br><br>Only Twelve Samples Received and Tested |
| 20mm | Sample bend through 180 degrees Satisfactorily without any crack |  |
| 16mm | Sample bend through 180 degrees Satisfactorily without any crack |  |
| 12mm | Sample bend through 180 degrees Satisfactorily without any crack |  |
|      |  |  |

Note: Please always confirm the results of above report on web [www.uet-civil.edu.pk](http://www.uet-civil.edu.pk)

Engr. Zaheer Ud Din Babar

**Test Performed By:**

Dr. /Engr.

Asad Ali Gillani

Deputy General Manager Projects HRL.(Const. of Sky Gardens Tower, Lahore)

**Client Reference:** HRLE/SKG/2022/010

**Dated:** 21-02-2022

**SOM Lab Ref:** CED/SOM/5909(Page-1/1)

**Dated:** 21-02-2022

**Test:** Tension Test & Bend Test

**Test Specification:** ASTM-A 615

**Sample Type:** Deformed Bar (Afco )

**Gauge Length:** 200 mm

| S.No. | Weight | Dia.    |            | Area            |                 | Yield Load | Ultimate Load | Yield Stress                |                              | Ult. Stress                 |                              | Elongation | Gauge Length | %age Elongation | Remarks |
|-------|--------|---------|------------|-----------------|-----------------|------------|---------------|-----------------------------|------------------------------|-----------------------------|------------------------------|------------|--------------|-----------------|---------|
|       |        | Nominal | Calculated | Nominal         | Calculated      |            |               | (according to nominal area) | (according to measured area) | (according to nominal area) | (according to measured area) |            |              |                 |         |
|       | kg/m   | mm      | mm         | mm <sup>2</sup> | mm <sup>2</sup> | kN         | kN            | MPa                         | MPa                          | MPa                         | MPa                          | mm         | mm           | %               |         |
| 1     | 2.959  | 22      | 21.91      | 380             | 377             | 165.00     | 272.00        | 434                         | 438                          | 716                         | 722                          | 37.5       | 200          | 18.8            |         |
| 2     | 2.995  | 22      | 22.04      | 380             | 382             | 168.00     | 277.00        | 442                         | 441                          | 729                         | 727                          | 37.5       | 200          | 18.8            |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |

**BEND TEST:**

|      |  |   |
|------|--|---|
| 22mm | Sample bend through 180 degrees Satisfactorily without any crack | <b>Note:-</b><br><br>Only Three Samples Received and Tested |
|      |  |   |
|      |  |   |
|      |  |   |

Note: Please always confirm the results of above report on web [www.uet-civil.edu.pk](http://www.uet-civil.edu.pk)

Khalid Bashir

Test Performed By:

Dr. /Engr.

Asad Ali Gillani

Ittfaq Building Solution (Pvt.)Ltd.(Kohinoor Textile Mill Raiwind,LHR.(Weaving Unit Extension))

Client Reference: IBS/KTML/ST 01

Dated: 21-02-2022

SOM Lab Ref: CED/SOM/5913(Page-1/1)

Dated: 21-02-2022

Test: Tension Test & Bend Test

Test Specification: ASTM-A 615

Sample Type: Deformed Bar

Gauge Length: 200 mm

| S.No. | Weight | Dia.    |            | Area            |                 | Yield Load | Ultimate Load | Yield Stress                |                              | Ult. Stress                 |                              | Elongation | Gauge Length | %age Elongation | Remarks |
|-------|--------|---------|------------|-----------------|-----------------|------------|---------------|-----------------------------|------------------------------|-----------------------------|------------------------------|------------|--------------|-----------------|---------|
|       |        | Nominal | Calculated | Nominal         | Calculated      |            |               | (according to nominal area) | (according to measured area) | (according to nominal area) | (according to measured area) |            |              |                 |         |
|       | kg/m   | mm      | mm         | mm <sup>2</sup> | mm <sup>2</sup> | kN         | kN            | MPa                         | MPa                          | MPa                         | MPa                          | mm         | mm           | %               |         |
| 1     | 2.450  | 20      | 19.93      | 314             | 312             | 186.00     | 235.70        | 592                         | 597                          | 750                         | 756                          | 25.0       | 200          | 12.5            |         |
| 2     | 2.447  | 20      | 19.92      | 314             | 312             | 171.20     | 223.50        | 545                         | 550                          | 711                         | 717                          | 25.0       | 200          | 12.5            |         |
| 3     | 0.902  | 12      | 12.10      | 113             | 115             | 55.70      | 80.00         | 492                         | 485                          | 707                         | 697                          | 30.0       | 200          | 15.0            |         |
| 4     | 0.890  | 12      | 12.02      | 113             | 113             | 53.00      | 78.20         | 469                         | 468                          | 691                         | 690                          | 35.0       | 200          | 17.5            |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               | -       |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               | -       |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               | -       |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               | -       |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               | -       |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               | -       |

**BEND TEST:**

|      |  |  |
|------|--|--|
| 20mm | Sample bend through 180 degrees Satisfactorily without any crack | <p><b>Note:-</b></p> <p>Only Six Samples Received and Tested</p> |
| 12mm | Sample bend through 180 degrees Satisfactorily without any crack |  |
|      |  |  |
|      |  |  |

Note: Please always confirm the results of above report on web [www.uet-civil.edu.pk](http://www.uet-civil.edu.pk)

Hamid Ali

**Test Performed By:**

Dr. /Engr.

S Asad Ali Gillani

RE Nespak (Dualization Of Rd From Karam Dad Qureshi To Qasba Gujrat L12Km In Muzaffargarh)

**Client Reference:** SA-467C/HA/01/10

**SOM Lab**

5905 (Page-

**Ref:**

1/2)

**Dated:** 07-02-2022

**Dated:**

21-02-2022

**Test:** Tension Test & Bend Test

**Test Specification:**

ASTM-A-615

**Gauge Length:** 8 inch

**Sample Type:**

Deformed Bar (FF Steel)

| S.No. | Weight | Dia.    |            | Area            |                 | Yield Load | Ultimate Load | Yield Stress                |                              | Ult. Stress                 |                              | Elongation | Gauge Length | %age Elongation | Remarks |
|-------|--------|---------|------------|-----------------|-----------------|------------|---------------|-----------------------------|------------------------------|-----------------------------|------------------------------|------------|--------------|-----------------|---------|
|       |        | Nominal | Calculated | Nominal         | Calculated      |            |               | (according to nominal area) | (according to measured area) | (according to nominal area) | (according to measured area) |            |              |                 |         |
|       | lb/ft  | #       | in         | in <sup>2</sup> | in <sup>2</sup> | Tons       | Tons          | psi                         | psi                          | psi                         | psi                          | in         | in           | %               |         |
| 1     | 2.704  | 8       | 1.006      | 0.79            | 0.795           | 24.67      | 35.78         | 68870                       | 68440                        | 99890                       | 99260                        | 1.50       | 8.0          | 18.8            |         |
| 2     | 1.532  | 6       | 0.757      | 0.44            | 0.450           | 15.26      | 20.41         | 76490                       | 74790                        | 102290                      | 100020                       | 1.20       | 8.0          | 15.0            |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               | -       |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               | -       |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               | -       |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               | -       |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               | -       |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               | -       |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               | -       |

**BEND TEST:**

|    |                        |   |
|----|------------------------|---|
| -- | No Bend test performed | <b>Note:-</b><br><br>Only Two Samples Received and Tested |
|    |                        |   |
|    |                        |   |
|    |                        |   |

Note: Please always confirm the results of above report on web [www.uet-civil.edu.pk](http://www.uet-civil.edu.pk)

Hamid Ali

Test Performed By:

Dr. /Engr.

S Asad Ali Gillani

RE Nespak (Dualization Of Rd From Karam Dad Qureshi To Qasba Gujrat L12Km In Muzaffargarh)

Client Reference: SA-467C/HA/01/06

SOM Lab

5905 (Page-

Ref:

2/2)

Dated: 26-01-2022

Dated:

21-02-2022

Test: Tension Test & Bend Test

Test Specification:

ASTM-A-615

Gauge Length: 8 inch

Sample Type:

Deformed Bar (FF Steel)

| S.No. | Weight | Dia.    |            | Area            |                 | Yield Load | Ultimate Load | Yield Stress                |                              | Ult. Stress                 |                              | Elongation | Gauge Length | %age Elongation | Remarks |
|-------|--------|---------|------------|-----------------|-----------------|------------|---------------|-----------------------------|------------------------------|-----------------------------|------------------------------|------------|--------------|-----------------|---------|
|       |        | Nominal | Calculated | Nominal         | Calculated      |            |               | (according to nominal area) | (according to measured area) | (according to nominal area) | (according to measured area) |            |              |                 |         |
|       | lb/ft  | #       | in         | in <sup>2</sup> | in <sup>2</sup> | Tons       | Tons          | psi                         | psi                          | psi                         | psi                          | in         | in           | %               |         |
| 1     | 0.670  | 4       | 0.501      | 0.20            | 0.197           | 6.47       | 8.48          | 71380                       | 72470                        | 93530                       | 94950                        | 1.10       | 8.0          | 13.8            |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               | -       |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               | -       |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               | -       |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               | -       |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               | -       |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               | -       |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               | -       |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               | -       |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               | -       |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               | -       |

**BEND TEST:**

|    |                        |  |
|----|------------------------|--|
| -- | No Bend test performed | <b>Note:-</b><br><br>Only One Sample Received and Tested |
|    |                        |  |
|    |                        |  |
|    |                        |  |

Note: Please always confirm the results of above report on web [www.uet-civil.edu.pk](http://www.uet-civil.edu.pk)

M Abu Bakar  
Lahore.

Test Performed By: Dr. /Engr. S Asad Ali Gillani

Client Reference: Nil

SOM Lab 5906 (Page-

Ref: 1/1)

Dated: 21-02-2022

Dated: 21-02-2022

Test: Tension Test & Bend Test

Test Specification: ASTM-A-615

Gauge Length: 8 inch

Sample Type: Deformed Bar

| S.No. | Weight | Dia.    |            | Area            |                 | Yield Load | Ultimate Load | Yield Stress                |                              | Ult. Stress                 |                              | Elongation | Gauge Length | %age Elongation | Remarks |
|-------|--------|---------|------------|-----------------|-----------------|------------|---------------|-----------------------------|------------------------------|-----------------------------|------------------------------|------------|--------------|-----------------|---------|
|       |        | Nominal | Calculated | Nominal         | Calculated      |            |               | (according to nominal area) | (according to measured area) | (according to nominal area) | (according to measured area) |            |              |                 |         |
|       | lb/ft  | #       | in         | in <sup>2</sup> | in <sup>2</sup> | Tons       | Tons          | psi                         | psi                          | psi                         | psi                          | in         | in           | %               |         |
| 1     | 0.588  | 4       | 0.469      | 0.20            | 0.173           | 5.27       | 7.90          | 58120                       | 67190                        | 87120                       | 100710                       | 1.30       | 8.0          | 16.3            |         |
| 2     | 0.607  | 4       | 0.476      | 0.20            | 0.178           | 6.60       | 10.14         | 72730                       | 81720                        | 111850                      | 125670                       | 1.00       | 8.0          | 12.5            |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               | -       |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               | -       |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               | -       |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               | -       |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               | -       |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               | -       |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               | -       |

**BEND TEST:**

|     |  |   |
|-----|--|---|
| # 4 | Sample bend through 180 degrees Satisfactorily without any crack | <b>Note:-</b><br><br>Only Three Samples Received and Tested |
|     |  |   |
|     |  |   |
|     |  |   |

Note: Please always confirm the results of above report on web [www.uet-civil.edu.pk](http://www.uet-civil.edu.pk)

Majeed Associate Pvt.Ltd

Test Performed By:

Dr. /Engr.

S Asad Ali Gillani

Project: Allied Bank Warehouse Pakpatan Rd Sahiwal)

Client Reference: Nil

SOM Lab

5907 (Page-

Ref:

1/1)

Dated: 21-02-2022

Dated:

21-02-2022

Test: Tension Test & Bend Test

Test Specification:

ASTM-A-615

Gauge Length: 8 inch

Sample Type:

Deformed Bar (Afco Steel)

| S.No. | Weight | Dia.    |            | Area            |                 | Yield Load | Ultimate Load | Yield Stress                |                              | Ult. Stress                 |                              | Elongation | Gauge Length | %age Elongation | Remarks |
|-------|--------|---------|------------|-----------------|-----------------|------------|---------------|-----------------------------|------------------------------|-----------------------------|------------------------------|------------|--------------|-----------------|---------|
|       |        | Nominal | Calculated | Nominal         | Calculated      |            |               | (according to nominal area) | (according to measured area) | (according to nominal area) | (according to measured area) |            |              |                 |         |
|       | lb/ft  | #       | in         | in <sup>2</sup> | in <sup>2</sup> | Tons       | Tons          | psi                         | psi                          | psi                         | psi                          | in         | in           | %               |         |
| 1     | 2.656  | 8       | 0.997      | 0.79            | 0.781           | 25.10      | 32.44         | 70070                       | 70870                        | 90550                       | 91600                        | 1.40       | 8.0          | 17.5            |         |
| 2     | 2.667  | 8       | 0.999      | 0.79            | 0.784           | 25.10      | 32.69         | 70070                       | 70600                        | 91270                       | 91960                        | 1.30       | 8.0          | 16.3            |         |
| 3     | 1.503  | 6       | 0.750      | 0.44            | 0.442           | 14.12      | 18.76         | 70770                       | 70450                        | 94020                       | 93590                        | 1.40       | 8.0          | 17.5            |         |
| 4     | 1.500  | 6       | 0.749      | 0.44            | 0.441           | 14.17      | 18.55         | 71020                       | 70860                        | 92990                       | 92780                        | 1.50       | 8.0          | 18.8            |         |
| 5     | 0.659  | 4       | 0.497      | 0.20            | 0.194           | 6.60       | 8.58          | 72730                       | 74980                        | 94650                       | 97580                        | 1.10       | 8.0          | 13.8            |         |
| 6     | 0.659  | 4       | 0.497      | 0.20            | 0.194           | 6.47       | 8.58          | 71380                       | 73590                        | 94650                       | 97580                        | 1.00       | 8.0          | 12.5            |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |

**BEND TEST:**

|     |  |  |
|-----|--|--|
| # 8 | Sample bend through 180 degrees Satisfactorily without any crack | <b>Note:-</b><br><br>Only Nine Samples Received and Tested |
| # 6 | Sample bend through 180 degrees Satisfactorily without any crack |  |
| # 4 | Sample bend through 180 degrees Satisfactorily without any crack |  |
|     |  |  |

Note: Please always confirm the results of above report on web [www.uet-civil.edu.pk](http://www.uet-civil.edu.pk)

Engr. Javed Asad

**Test Performed By:** Dr. /Engr. S Asad Ali Gillani

CRE JIP Consultants.(Const.of Jalapur Irrigation Canal and Its System)(No.JIP/WkS/ICB/P2)

**Client Reference:** JIPIC/TECH/P2/CRE/45

**SOM Lab** 5908 (Page-

**Ref:** 1/1)

**Dated:** 18-02-2022

**Dated:** 21-02-2022

**Test:** Tension Test & Bend Test

**Test Specification:** ASTM-A-615

**Gauge Length:** 8 inch

**Sample Type:** Deformed Bar (SGI Steel)

| S.No. | Weight | Dia.    |            | Area            |                 | Yield Load | Ultimate Load | Yield Stress                |                              | Ult. Stress                 |                              | Elongation | Gauge Length | %age Elongation | Remarks |
|-------|--------|---------|------------|-----------------|-----------------|------------|---------------|-----------------------------|------------------------------|-----------------------------|------------------------------|------------|--------------|-----------------|---------|
|       |        | Nominal | Calculated | Nominal         | Calculated      |            |               | (according to nominal area) | (according to measured area) | (according to nominal area) | (according to measured area) |            |              |                 |         |
|       | lb/ft  | #       | in         | in <sup>2</sup> | in <sup>2</sup> | Tons       | Tons          | psi                         | psi                          | psi                         | psi                          | in         | in           | %               |         |
| 1     | 1.659  | 6       | 0.788      | 0.44            | 0.488           | 15.04      | 22.29         | 75370                       | 67950                        | 111750                      | 100750                       | 1.30       | 8.0          | 16.3            |         |
| 2     | 1.611  | 6       | 0.776      | 0.44            | 0.473           | 13.99      | 21.53         | 70100                       | 65210                        | 107910                      | 100380                       | 1.40       | 8.0          | 17.5            |         |
| 3     | 1.073  | 5       | 0.633      | 0.31            | 0.315           | 9.60       | 14.39         | 68320                       | 67230                        | 102400                      | 100780                       | 1.20       | 8.0          | 15.0            |         |
| 4     | 1.030  | 5       | 0.621      | 0.31            | 0.303           | 9.09       | 14.12         | 64690                       | 66190                        | 100440                      | 102760                       | 1.20       | 8.0          | 15.0            |         |
| 5     | 0.634  | 4       | 0.487      | 0.20            | 0.186           | 5.68       | 8.46          | 62610                       | 67330                        | 93300                       | 100320                       | 1.20       | 8.0          | 15.0            |         |
| 6     | 0.636  | 4       | 0.488      | 0.20            | 0.187           | 5.78       | 8.12          | 63740                       | 68170                        | 89590                       | 95820                        | 1.30       | 8.0          | 16.3            |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |

**BEND TEST:**

|     |  |  |
|-----|--|--|
| # 6 | Sample bend through 180 degrees Satisfactorily without any crack | <b>Note:-</b><br><br>Only Nine Samples Received and Tested |
| # 5 | Sample bend through 180 degrees Satisfactorily without any crack |  |
| # 4 | Sample bend through 180 degrees Satisfactorily without any crack |  |
|     |  |  |

Note: Please always confirm the results of above report on web [www.uet-civil.edu.pk](http://www.uet-civil.edu.pk)



Maj Adnan Khalid (R)

**Test Performed By:**

Dr. /Engr. S. Asad Ali Gillani

Dy Dir MTL DHA Lhr,(Infra Structure Dev Works Of Sec-IV Block-Q DHA Ph-XI Rahbar (M/s DHA-C))

**Client Reference:** 408/241/32/Lab/53/29

**SOM Lab** 5910 (Page-

**Ref:** 1/1)

**Dated:** 21-02-2022

**Dated:** 21-02-2022

**Test:** Tension Test & Bend Test

**Test Specification:**

ASTM-A-615

**Gauge Length:** 8 inch

**Sample Type:**

Deformed Bar (Moiz Steel)

| S.No. | Weight | Dia.    |            | Area            |                 | Yield Load | Ultimate Load | Yield Stress                |                              | Ult. Stress                 |                              | Elongation | Gauge Length | %age Elongation | Remarks |
|-------|--------|---------|------------|-----------------|-----------------|------------|---------------|-----------------------------|------------------------------|-----------------------------|------------------------------|------------|--------------|-----------------|---------|
|       |        | Nominal | Calculated | Nominal         | Calculated      |            |               | (according to nominal area) | (according to measured area) | (according to nominal area) | (according to measured area) |            |              |                 |         |
|       | lb/ft  | #       | in         | in <sup>2</sup> | in <sup>2</sup> | Tons       | Tons          | psi                         | psi                          | psi                         | psi                          | in         | in           | %               |         |
| 1     | 2.649  | 8       | 0.995      | 0.79            | 0.778           | 23.39      | 34.37         | 65310                       | 66320                        | 95960                       | 97440                        | 1.70       | 8.0          | 21.3            |         |
| 2     | 2.648  | 8       | 0.995      | 0.79            | 0.778           | 23.45      | 34.32         | 65460                       | 66470                        | 95820                       | 97300                        | 1.50       | 8.0          | 18.8            |         |
| 3     | 2.700  | 8       | 1.005      | 0.79            | 0.793           | 27.85      | 36.46         | 77750                       | 77450                        | 101800                      | 101410                       | 1.40       | 8.0          | 17.5            |         |
| 4     | 2.693  | 8       | 1.004      | 0.79            | 0.791           | 27.83      | 36.41         | 77690                       | 77590                        | 101650                      | 101520                       | 1.40       | 8.0          | 17.5            |         |
| 5     | 1.480  | 6       | 0.744      | 0.44            | 0.435           | 13.78      | 19.16         | 69080                       | 69880                        | 96060                       | 97160                        | 1.50       | 8.0          | 18.8            |         |
| 6     | 1.475  | 6       | 0.743      | 0.44            | 0.433           | 13.83      | 19.27         | 69340                       | 70460                        | 96570                       | 98130                        | 1.60       | 8.0          | 20.0            |         |
| 7     | 1.467  | 6       | 0.741      | 0.44            | 0.431           | 13.88      | 19.27         | 69590                       | 71050                        | 96570                       | 98590                        | 1.50       | 8.0          | 18.8            |         |
| 8     | 1.473  | 6       | 0.743      | 0.44            | 0.433           | 13.32      | 18.96         | 66780                       | 67860                        | 95040                       | 96570                        | 1.50       | 8.0          | 18.8            |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |

**BEND TEST:**

|     |  |  |
|-----|--|--|
| # 8 | Sample bend through 180 degrees Satisfactorily without any crack | <b>Note:-</b><br><br>Only Twelve Samples Received and Tested |
| # 8 | Sample bend through 180 degrees Satisfactorily without any crack |  |
| # 6 | Sample bend through 180 degrees Satisfactorily without any crack |  |
| # 6 | Sample bend through 180 degrees Satisfactorily without any crack |  |

Note: Please always confirm the results of above report on web [www.uet-civil.edu.pk](http://www.uet-civil.edu.pk)

Asif Pervaiz Butt  
 RE AYQ Developers Pvt. Ltd.(Union Copmlex)

Test Performed By: Dr. /Engr. S Asad Ali Gillani

Client Reference: Nil

SOM Lab 5912 (Page-

Ref: 1/1)

Dated: 21-02-2022

Dated: 21-02-2022

Test: Tension Test & Bend Test

Test Specification: ASTM-A-615

Gauge Length: 8 inch

Sample Type: Deformed Bar (AF Steel)

| S.No. | Weight | Dia.    |            | Area            |                 | Yield Load | Ultimate Load | Yield Stress                |                              | Ult. Stress                 |                              | Elongation | Gauge Length | %age Elongation | Remarks |
|-------|--------|---------|------------|-----------------|-----------------|------------|---------------|-----------------------------|------------------------------|-----------------------------|------------------------------|------------|--------------|-----------------|---------|
|       |        | Nominal | Calculated | Nominal         | Calculated      |            |               | (according to nominal area) | (according to measured area) | (according to nominal area) | (according to measured area) |            |              |                 |         |
|       | lb/ft  | #       | in         | in <sup>2</sup> | in <sup>2</sup> | Tons       | Tons          | psi                         | psi                          | psi                         | psi                          | in         | in           | %               |         |
| 1     | 2.586  | 8       | 0.984      | 0.79            | 0.760           | 23.16      | 31.55         | 64660                       | 67210                        | 88080                       | 91560                        | 1.40       | 8.0          | 17.5            |         |
| 2     | 2.591  | 8       | 0.984      | 0.79            | 0.761           | 24.03      | 31.19         | 67080                       | 69630                        | 87080                       | 90400                        | 1.50       | 8.0          | 18.8            |         |
| 3     | 2.633  | 8       | 0.993      | 0.79            | 0.774           | 24.31      | 32.42         | 67870                       | 69280                        | 90500                       | 92370                        | 1.50       | 8.0          | 18.8            |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               | -       |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               | -       |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               | -       |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               | -       |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               | -       |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               | -       |

**BEND TEST:**

|     |  |  |
|-----|--|--|
| # 8 | Sample bend through 180 degrees Satisfactorily without any crack | <b>Note:-</b><br><br>Only Four Samples Received and Tested |
|     |  |  |
|     |  |  |
|     |  |  |

Note: Please always confirm the results of above report on web [www.uet-civil.edu.pk](http://www.uet-civil.edu.pk)