

Khalid  
Pervaiz

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

Moaz Steel Lahore.(Descon Engineering, K-4 Pumping Station,Makli, Thatta,Sindh,Pakistan)

Client Reference: MZ/CGGC-DE/DD/UET/001

Dated : 19-09-2023

SOM Lab Ref: CED/SOM/2891(Page-1/1)

Dated : 19-09-2023

Test: Tension Test & Bend Test

Test Specification: ASTM-A 615

Sample Type: Round Steel Bar

Gauge Length: 200 m

| 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         | m            | %               |         |
| 1     | 3.971  | 25      | 25.38      | 491             | 506             | 220.50     | 364.00        | 449                         | 436                          | 742                         | 720                          | 42.5       | 200          | 21.3            |         |
| 2     | 3.989  | 25      | 25.44      | 491             | 508             | 221.00     | 364.20        | 450                         | 435                          | 742                         | 717                          | 37.5       | 200          | 18.8            |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               | -       |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               | -       |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               | -       |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               | -       |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               | -       |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               | -       |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               | -       |

**BEND TEST:**

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

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

Engr. Farid Ullah Shah, RE

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

Acrow Consultant Engineers Lahore.(Const Of Appartments Building at 45-B-1 Gulberg III Lhr)

Client Reference: AC/B-45/Gulberg III Lhr

SOM Lab

Ref: 2888 (Page-1/1)

Dated: 18-09-2023

Dated: 19-09-2023

Test: Tension Test & Bend Test  
inc

Test Specification:

ASTM-A-615

Gauge Length: 8 h

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     | 2.651  | 8       | 0.996      | 0.79            | 0.779           | 21.76      | 35.58         | 60760                       | 61620                        | 99320                       | 100720                       | 1.50       | 8.0          | 18.8            |         |
| 2     | 2.690  | 8       | 1.004      | 0.79            | 0.791           | 21.81      | 35.88         | 60900                       | 60830                        | 100170                      | 100050                       | 1.40       | 8.0          | 17.5            |         |
| 3     | 1.488  | 6       | 0.746      | 0.44            | 0.437           | 12.28      | 18.88         | 61570                       | 61990                        | 94630                       | 95280                        | 1.20       | 8.0          | 15.0            |         |
| 4     | 1.482  | 6       | 0.745      | 0.44            | 0.436           | 12.13      | 18.73         | 60810                       | 61360                        | 93860                       | 94720                        | 1.10       | 8.0          | 13.8            |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |

**BEND TEST:**

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

Shahzad Khurram Khan, CRE

Test Performed By: Dr. /Engr. Waseem Abbas

Osmani & Compny Pvt Ltd. (Const Of B/Wall along Periphery of AICC Near Sahiwal Interchange M-4)

Client Reference: CRE/AICC-05&06/Lab/527

SOM Lab

Ref: 2890 (Page-1/1)

Dated: 18-09-2023

Dated: 19-09-2023

Test: Tension Test & Bend Test  
inc

Test Specification:

ASTM-A-615

Gauge Length: 8 h

Sample Type:

Deformed Bar (Kamran 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     | 1.055  | 5       | 0.628      | 0.31            | 0.310           | 9.14       | 12.56         | 65050                       | 65050                        | 89350                       | 89350                        | 1.50       | 8.0          | 18.8            |         |
| 2     | 1.054  | 5       | 0.628      | 0.31            | 0.310           | 9.19       | 12.64         | 65420                       | 65420                        | 89930                       | 89930                        | 1.50       | 8.0          | 18.8            |         |
| 3     | 0.668  | 4       | 0.500      | 0.20            | 0.196           | 7.31       | 9.43          | 80600                       | 82240                        | 103980                      | 106100                       | 1.00       | 8.0          | 12.5            |         |
| 4     | 0.672  | 4       | 0.501      | 0.20            | 0.197           | 7.41       | 9.53          | 81720                       | 82970                        | 105100                      | 106700                       | 1.10       | 8.0          | 13.8            |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               | -       |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               | -       |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               | -       |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               | -       |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               | -       |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               | -       |

**BEND TEST:**

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

Naveed Ahmad

Test Performed By: Dr. /Engr. Wasim Abbas

Asst Dir Lab DHA Bahawalpur Cantonment.(Pelican Mall DHA Bahawalpur)

Client Reference: 530/QC/MTL

SOM Lab

Ref: 2892 (Page-1/2)

Dated: Sep-2023

Dated: 19-09-2023

Test: Tension Test & Bend Test  
inc

Test Specification:

ASTM-A-615

Gauge Length: 8 h

Sample Type:

Deformed Bar (Kamran 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     | 2.578  | 8       | 0.982      | 0.79            | 0.758           | 26.93      | 34.05         | 75190                       | 78360                        | 95050                       | 99060                        | 1.40       | 8.0          | 17.5            |         |
| 2     | 1.476  | 6       | 0.743      | 0.44            | 0.434           | 14.83      | 20.56         | 74350                       | 75370                        | 103060                      | 104480                       | 1.30       | 8.0          | 16.3            |         |
| 3     | 0.587  | 4       | 0.469      | 0.20            | 0.173           | 5.52       | 7.70          | 60930                       | 70440                        | 84870                       | 98120                        | 1.10       | 8.0          | 13.8            |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               | -       |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               | -       |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               | -       |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               | -       |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               | -       |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               | -       |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               | -       |

**BEND TEST:**

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

Naveed Ahmad

Test Performed By: Dr. /Engr. Wasim Abbas

Asst Dir Lab DHA Bahawalpur Cantonment.(Pelican Mall DHA Bahawalpur)

Client Reference: 530/QC/MTL

SOM Lab

Ref: 2892 (Page-2/2)

Dated: Sep-2023

Dated: 19-09-2023

Test: Tension Test & Bend Test  
inc

Test Specification:

ASTM-A-615

Gauge Length: 8 h

Sample Type:

Deformed Bar (Naveena 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     | 2.645  | 8       | 0.995      | 0.79            | 0.777           | 25.99      | 37.10         | 72570                       | 73780                        | 103590                      | 105320                       | 1.30       | 8.0          | 16.3            |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |

**BEND TEST:**

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

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