

Dr Salah Ud Din Azad, Retd  
Addl Dir DHA Multan.(Const Of Graveyard Sector-G)

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

**Client Reference:** 701/13/Lab/DHA

**SOM Lab Ref:** 4752 (P-1b/1)

**Dated:** 22-08-2024

**Dated:** 06-09-2024

**Test:** Tension Test

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

**Guage Length:** 200 mm

**Sample Type:** Deformed Bar (Hunza 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) |            |              |                 |         |
|       | kg/m   | mm      | mm         | mm <sup>2</sup> | mm <sup>2</sup> | kN         | kN            | MPa                         | MPa                          | MPa                         | MPa                          | mm         | mm           | %               |         |
| 1     | 0.870  | 12      | 11.89      | 113             | 111             | 56.00      | 71.50         | 496                         | 505                          | 633                         | 645                          | 35.0       | 200          | 17.5            |         |
| 2     | 0.857  | 12      | 11.79      | 113             | 109             | 53.50      | 70.70         | 473                         | 490                          | 626                         | 648                          | 32.5       | 200          | 16.3            |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |

**BEND TEST:**

|      |  |   |
|------|--|---|
| 12mm | 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)

Test Performed by: S. Asad Ali Gillani

Ashfaq & Brothers  
Manufacturers & Traders  
Lahore.

Client Reference No.: Nil

Dated: 06-09-2024

SOM Lab Ref: CED/SOM/4754 (Page 1/1)

Dated: 06-09-2024

Test Type: Tensile Test

Sample Type: Bolts

### Tensile Test Results

| Sample No. | Sample Type       | Tested Diameter of Rod/Bolt (mm) | Ultimate Load (kN) | Ultimate Tensile Stress (MPa) | % Elongation |
|------------|-------------------|----------------------------------|--------------------|-------------------------------|--------------|
| 1          | Bolt (M16 x 65mm) | 12.5                             | 121.70             | 991.69                        | 8.33         |

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

Test Performed by: S. Asad Ali Gillani

Khan Brother Engineers

Lahore.

(Fixing of Steel Wire on Peb Roof at Unilever Pakistan Ltd Multan Road Phool Nagar Distt Kasur)

Client Reference No.: KBE-001

Dated: 05-09-2024

SOM Lab Ref: CED/SOM/4757 (Page 1/1)

Dated: 06-09-2024

Test Type: Tensile Test, Bend Test

Sample Type: MS Angle

Gauge Length: 2 inches

#### Tensile Test Results

| Sr. No. | Size of strip (mm) | X Section Area (mm <sup>2</sup> ) | Yield Load (kN) | Ultimate Load (kN) | Yield Stress (MPa) | Ultimate Tensile Stress (MPa) | Elongation (inch) | % Elongation |
|---------|--------------------|-----------------------------------|-----------------|--------------------|--------------------|-------------------------------|-------------------|--------------|
| 1       | 24.0 x 2.8         | 67.20                             | 30.0            | 41.5               | 446.42             | 617.56                        | 0.40              | 20.00        |

#### Bend Test Results

| Sr. No. | Sample Type | Ultimate Load (kN) |
|---------|-------------|--------------------|
| 1       | MS Angle    | 4.0                |

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

Dr Salah Ud Din Azad, Retd  
Addl Dir DHA Multan.(Const Of Graveyard Sector-G)

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

**Client Reference:** 701/13/Lab/DHA

**SOM Lab**

**Ref:** 4752 (P-1a/1)

**Dated:** 22-08-2024

**Dated:** 06-09-2024

**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     | 1.510  | 6       | 0.752      | 0.44            | 0.444           | 13.53      | 19.06         | 67810                       | 67190                        | 95550                       | 94690                        | 1.40       | 8.0          | 17.5            |         |
| 2     | 1.507  | 6       | 0.751      | 0.44            | 0.443           | 13.48      | 19.06         | 67550                       | 67090                        | 95550                       | 94900                        | 1.40       | 8.0          | 17.5            |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |

**BEND TEST:**

|     |  |   |
|-----|--|---|
| # 6 | 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)

Sub Divisional officer,

**Test Performed By:** Dr. /Engr. Irfan UI Hassan

BSD Lodhran.(Revamping of All DHQ/15-THQ Hospital in Punjab One AT DHQ Hospital Lodhran)

**Client Reference:** 1482/LD

**SOM Lab**

**Ref:** 4753 (Page-1/1)

**Dated:** 20-05-2024

**Dated:** 06-09-2024

**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     | 0.664  | 4       | 0.498      | 0.20            | 0.195           | 6.44       | 8.77          | 71040                       | 72870                        | 96670                       | 99150                        | 1.20       | 8.0          | 15.0            |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |

**BEND TEST:**

|     |  |   |
|-----|--|---|
| # 4 | Sample bend through 180 degrees Satisfactorily without any crack | <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)

Zahid Mughal  
C/O M/S Amanah Noor Residence Model Town, Lahore.

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

Client Reference: Nil

SOM Lab

Ref: 4755 (Page-1/1)

Dated: Nil

Dated: 06-09-2024

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     | 2.639  | 8       | 0.994      | 0.79            | 0.776           | 28.34      | 34.93         | 79120                       | 80540                        | 97530                       | 99290                        | 1.00       | 8.0          | 12.5            |         |
| 2     | 0.674  | 4       | 0.502      | 0.20            | 0.198           | 6.54       | 8.58          | 72170                       | 72900                        | 94650                       | 95610                        | 1.10       | 8.0          | 13.8            |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |

**BEND TEST:**

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

Sufyan Uppal, PE

Test Performed By:

Dr. /Engr.

Irfan Ul Hassan

Baig Constuction Co. Lahore.(Const. Of Jinnah Square Mall Raiwind Road Lahore)

Client Reference: ST/UET/05092024/0468

SOM Lab

Ref:

4756 (Page-1/1)

Dated: 05-09-2024

Dated:

06-09-2024

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     | 2.696  | 8       | 1.004      | 0.79            | 0.792           | 21.99      | 35.04         | 61390                       | 61230                        | 97810                       | 97560                        | 1.10       | 8.0          | 13.8            |         |
| 2     | 2.717  | 8       | 1.008      | 0.79            | 0.798           | 22.12      | 35.37         | 61760                       | 61140                        | 98750                       | 97760                        | 1.40       | 8.0          | 17.5            |         |
| 3     | 1.495  | 6       | 0.748      | 0.44            | 0.439           | 14.07      | 19.88         | 70510                       | 70670                        | 99640                       | 99860                        | 1.30       | 8.0          | 16.3            |         |
| 4     | 1.494  | 6       | 0.748      | 0.44            | 0.439           | 13.86      | 20.18         | 69490                       | 69650                        | 101170                      | 101400                       | 1.30       | 8.0          | 16.3            |         |
| 5     | 0.662  | 4       | 0.498      | 0.20            | 0.195           | 6.40       | 8.66          | 70600                       | 72410                        | 95550                       | 98000                        | 1.20       | 8.0          | 15.0            |         |
| 6     | 0.668  | 4       | 0.500      | 0.20            | 0.196           | 6.57       | 8.36          | 72510                       | 73990                        | 92180                       | 94060                        | 1.20       | 8.0          | 15.0            |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |

**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)

Ali Raza  
Atlas Tower Lahore.

Test Performed By: Dr. /Engr. Irfan UI Hassan

Client Reference: Nil  
Dated: 05-09-2024

SOM Lab  
Ref: 4758 (Page-1/1)  
Dated: 06-09-2024

Test: Tension Test & Bend Test  
Gauge Length: 8 inch

Test Specification: ASTM-A-615  
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     | 2.658  | 8       | 0.997      | 0.79            | 0.781           | 24.57      | 34.40         | 68590                       | 69380                        | 96050                       | 97150                        | 1.40       | 8.0          | 17.5            |         |
| 2     | 2.631  | 8       | 0.992      | 0.79            | 0.773           | 25.86      | 35.88         | 72200                       | 73790                        | 100170                      | 102380                       | 1.30       | 8.0          | 16.3            |         |
| 3     | 1.519  | 6       | 0.754      | 0.44            | 0.446           | 13.56      | 21.48         | 67960                       | 67040                        | 107660                      | 106210                       | 1.20       | 8.0          | 15.0            |         |
| 4     | 1.464  | 6       | 0.740      | 0.44            | 0.430           | 15.39      | 19.80         | 77160                       | 78950                        | 99230                       | 101540                       | 1.30       | 8.0          | 16.3            |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |

**BEND TEST:**

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